Contract Provisions and Plans

For Construction of:

South Osterman Creek Culvert Repair Project#EO214-5; FEMA Project #4650DR-WA-674680

SKAGIT COUNTY PUBLIC WORKS

South Osterman Creek Culvert Repair Project#EO214-5; FEMA Project #4650DR-WA-674680

Concrete Sauk Valley Road (#8000) at MP 13.3:

This Contract provides for the repair of Concrete Sauk Valley Road, the South Osterman Creek Culvert, and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the 2025 Standard Specifications.

Includes, but is not limited to: Repair and rehabilitation of the existing culvert to restore structural integrity and hydraulic capacity. Major work elements include excavation and removal of damaged culvert sections; installation of new culvert structure; placement of streambed aggregate; roadway and shoulder restoration; installation of erosion and sediment control measures; and implementation of temporary traffic control. The Work shall be completed in accordance with the plans, specifications, and applicable permits.



All work to be completed within 60 working days from Notice to Proceed.

Measurement & Payment: Each item will be per the bid proposal.

South Osterman Creek Culvert Repair
Project#EO214-5;
FEMA Project #4650DR-WA-674680

SKAGIT COUNTY, WASHINGTON

2025
SKAGIT COUNTY
DEPARTMENT OF PUBLIC WORKS
MOUNT VERNON, WASHINGTON 98273-5625

NOTICE TO ALL PLAN HOLDERS

Copies of the Plans and specifications are available at Skagit County Public Works, 1800 Continental Place, Mount Vernon, Washington 98273-5625. Telephone: (360) 416-1400. You may receive the bid information electronically; copies of the plans and specifications are available at: http://www.skagitcounty.net/rfp

APPROVED:

Thomas Weller, P.E.
County Engineer

MAPS, PLANS, AND SPECIFICATIONS APPROVED:

BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON

Lisa Janicki, Chair

Ron Wesen, Commissioner

Peter Browning, Commissioner

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT – SOUTH OSTERMAN CREEK
Skagit County Project No. EO214-5
Federal Aid No. 4650DR-WA #674680

CERTIFICATION

We hereby certify that these contract documents were prepared by us or under our direct supervision, and that we are duly registered Professional Engineers under the laws of the State of Washington.

Engineers of Record

Certificate of Division 1
except Section 1-10



10/27/2025

Thomas M. Weller, P.E.
Skagit County

Certificate of Division 1 Section 1-10
and Divisions 2-9



10-27-2025

Ravyn Whitewolf, P.E.
David Evans and Associates, Inc.

NOTICE OF CALL FOR BIDS

NOTICE IS HEREBY GIVEN by SKAGIT COUNTY that sealed bids will be received and publicly opened in the Commissioners' Hearing Room, 1800 Continental Place, Mount Vernon, WA 98273 on **Monday, December 15, 2025, at the hour of 2:30 p.m.,** or as soon thereafter as possible, for the following work:

South Osterman Creek Culvert Repair, Project#EO214-5;
FEMA Project #4650DR-WA-674680

Attendance will be in-person or remote by computer, tablet, or smartphone: https://us06web.zoom.us/j/87180001980?pwd=eEVGUGkxZ3NkQkhYSnhBMEo2RTQrdz09 or by phone: 1 (253) 215-8782 Meeting ID: 871 8000 1980

PROJECT DESCRIPTION:
Concrete Sauk Valley Road (#8000) at MP 13.3:
This Contract provides for the repair of Concrete Sauk Valley Road, the South Osterman Creek Culvert, and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the 2025 Standard Specifications.

Includes, but is not limited to: Repair and rehabilitation of the existing culvert to restore structural integrity and hydraulic capacity. Major work elements include excavation and removal of damaged culvert sections; installation of new culvert structure; placement of streambed aggregate; roadway and shoulder restoration; installation of erosion and sediment control measures; and implementation of temporary traffic control. The Work shall be completed in accordance with the plans, specifications, and applicable permits.

The time limit for physical completion of work is a total of 60 WORKING DAYS. The Engineer's Estimate Range is $1,947,958 to $2,153,006.

Contractor and all subcontractors shall have a contractor's license to work in the State of Washington.

Information, copies of maps, plans, specifications, and addenda for this project will be available on-line beginning **November 13, 2025,** at http://www.skagitcounty.net/rfp or obtained at Skagit County Public Works Department, 1800 Continental Place, Mount Vernon, Washington: (360) 416-1400. Contractors who download plans and specifications are advised to e-mail brendao@co.skagit.wa.us to be added to plan holders list to receive any addenda that may be issued.

A non-mandatory site visit will be held on Thursday, November 20, 2025, at 10:00 a.m., at the project site, 53700 Concrete Sauk Valley Rd, Concrete, WA 98237. All technical questions regarding this project are to be submitted **no later than 12:00 p.m., Monday, November 24, 2025** in writing to Joel Shroyer, Project Manager, or by e-mail to joels@co.skagit.wa.us with the subject line reading, **"South Osterman Creek Culvert Repair, EO214-5"**. All project specific questions and response to answers for this project will be available on-line as received. **All Addenda will be posted on-line for this project by 4:00 p.m. Friday, December 5, 2025**. If further Addenda are required to be issued, the bid opening will be postponed.

All bid envelopes must be plainly marked on the outside, "**Sealed Bid, South Osterman Creek Culvert Repair, EO214-5".** Sealed bids shall be received by one of the following delivery methods before **Monday, December 15, 2024, at the hour of 2:30 p.m**. Proposals are to be submitted on the forms provided in the Bid Proposal Packet. Incomplete proposals and proposals received after the time fixed for the opening cannot be considered. Oral, telephonic, telegraphic, electronic, or faxed proposals will not be accepted. All bidding shall be based upon compliance with the Contract Provisions and Plans.

1. **Hand delivered**: Bids delivered in person shall be received only at the office of the SKAGIT COUNTY COMMISSIONERS, Reception Desk, 1800 Continental Place, Suite 100, Mount Vernon, WA 98273-5625.
2. **Via mail**: Bids shall be mailed to the SKAGIT COUNTY COMMISSIONERS, 1800 Continental Place, Suite 100, Mount Vernon, WA 98273-5625.

BID GUARANTY: No bid will be considered unless accompanied by a surety company bid bond, or a certified or cashier's check payable to the order of Skagit County for a sum not less than five percent (5%) of the total amount of the bid. A Contract Bond covering performance and payment will be required with the contract. Washington State Prevailing Wage Rates apply to this contract and bidders are advised to consider this charge when tabulating bids.

Skagit County reserves the right to reject any or all bids, and the right to waive any informalities or irregularities in any bid or in any bidding and to further award the Project to the lowest, responsive, responsible bidder whose bid complies with all of the prescribed formalities, as it best serves the interest of Skagit County. After the date and hour set for the opening of bids, no bidder may withdraw its bid unless the award of the contract is delayed for a period exceeding forty-five (45) calendar days following bid opening. All bidders agree to be bound by their bids until the expiration of this stated time period.

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

For questions regarding Skagit County's Title VI Program, you may contact the Public Works Department's Title VI Coordinator, Michael See, at (360) 416-1400.

The Board of Skagit County Commissioners reserves the right to reject any or all bids.

NOTICE GIVEN BY ORDER OF THE BOARD OF SKAGIT COUNTY COMMISSIONERS this 10 day of November, 2025.

Kerri Williams

Clerk of the Board

Published: Skagit Valley Herald – November 13, 20 & 27, 2025
Daily Journal of Commerce – November 13, 20 & 27, 2025

Posted: Washington State Office of Minority & Women's Business Enterprises (OMWBE) – Bids & Contracting Opportunities webpage –November 13, 2025
https://omwbe.wa.gov/small-business-assistance/bids-contracting-opportunities

Skagit County Website on November 13, 2025
www.skagitcounty.net/rfp

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INTRODUCTION TO THE SPECIAL PROVISIONS

(January 4, 2024 APWA GSP, Option A)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2025 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications"). The Standard Specifications, as modified or supplemented by these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

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

The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

(March 8, 2013 APWA GSP)
(April 1, 2013 WSDOTGSP)
(May 1, 2013 SkagitR)
(May 2013 TT SP)
(October 2013 NSD SP)

Project specific special provisions are labeled without a date as such:
(*****)

Also incorporated into the Contract Documents by reference are:

- *Manual on Uniform Traffic Control Devices for Streets and Highways*, currently adopted edition, with Washington State modifications, if any
- *Standard Plans for Road, Bridge and Municipal Construction*, WSDOT Manual M21-01, current edition
- *Bridge Design Manual (LRFD)*, WSDOT, current edition
- *Skagit County Road Standards*, current edition

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

Division 1
General Requirements

DESCRIPTION OF WORK

(March 13, 1995)
This Contract provides for the improvement of *** Concrete Sauk Valley Road, the South Osterman Creek Culvert, *** and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

Definition and Terms

1-01.3 Definitions

(January 19, 2022 APWA GSP)

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

Dates

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

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

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

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

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

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

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

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

Supplement this Section with the following:

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

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

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

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

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

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

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

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

Contract Documents
See definition for “Contract”.

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

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

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

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

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

Delete this section and replace it with the following:

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

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

1-02.2 Plans and Specifications
(June 27, 2011 APWA GSP)

Delete this section and replace it with the following:

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

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

To Prime Contractor	No. of Sets	Basis of Distribution
Reduced plans (11" x 17")	6	Furnished automatically upon award.
Contract Provisions	6	Furnished automatically upon award.
Large plans (e.g., 22" x 34")	1	Furnished only upon request.

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

Examination of Plans, Specifications and Site of Work

1-02.4(1) General
(December 30, 2022 APWA GSP Option B)

The first sentence of the ninth paragraph, beginning with "Prospective Bidder desiring…", is revised to read:

Prospective Bidders desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business ten (10) business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.

1-02.4(2) Subsurface Information

(March 8, 2025 SkagitR)

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

The Geotechnical Report, including conditions and boring logs, are included as an appendix to the Special Provisions and shall be considered part of the Contract.

1-02.5 Proposal Forms

(November 25, 2024 APWA GSP)

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's DBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be in legible figures (not words) written in ink or typed and expressed in U.S. dollars. The required certifications are included as part of the Proposal Form.

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

1-02.6 Preparation of Proposal

(April 22, 2025 APWA GSP, Option B)

The first sentence of the second paragraph is revised to read as follows:

All prices shall be in legible figures (not words) written in ink or typed, and expressed in U.S. dollars.

Supplement the second paragraph with the following:

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

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

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

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

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name and signed by a partner.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture.

Add the following new section:

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

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

1-02.7 Bid Deposit
(March 8, 2013 APWA GSP)

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, bidder must use the bond form included in the Contract Provisions.

If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

1-02.9 Delivery of Proposal
(April 22, 2025 APWA GSP, Option A)

Delete this section and replace it with the following:

GENERAL

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

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

- DBE Utilization Certification
- DBE Written Confirmation Document (from each DBE firm listed on the Bidder's completed DBE Utilization Certification
- Good Faith Effort (GFE) Documentation (if applicable)
- DBE Bid Item Breakdown

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

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

Supplemental bid information submitted after the Proposal submittal but within 48 hours of the time specified for receipt of Proposals, shall be submitted in a sealed envelope labeled the same as for the Proposal, with "Supplemental Information" added.

DBE DOCUMENT SUBMITTAL REQUIREMENTS

DBE Utilization Certification (WSDOT Form 272-056)

The DBE Utilization Certification shall be received at the same location and no later than the time required for delivery of the Proposal. The Contracting Agency will not open or consider any Proposal when the DBE Utilization Certification is received after the time specified for receipt of Proposals or received in a location other than that specified for receipt of Proposals. The DBE Utilization Certification may be submitted in the same envelope as the Bid deposit.

DBE Written Confirmation Document (WSDOT Form 422-031) and/or GFE Documentation, (if applicable)

The DBE Written Confirmation Documents and/or GFE Documentation are not required to be submitted with the Proposal. The DBE Written Confirmation Document(s) and/or GFE Documentation (if applicable) shall be received either with the Bid Proposal or as a Supplement to the Bid. Written Confirmation and/or GFE Documentation shall be received no later than 48 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Proposal. To be considered responsive, Bidders shall submit a Written Confirmation Document from each DBE firm listed on the Bidder's completed DBE Utilization Certification and/or the GFE Documentation as required by Section 1-02.6.

DBE Bid Item Breakdown Form (WSDOT Form 272-054)

The DBE Bid Item Breakdown shall be received either with the Bid Proposal or as a Supplement to the Bid. The documents shall be received no later than 48 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Proposal. To be considered responsive, Bidders shall submit a completed DBE Bid Item Breakdown,

however, the Contractor may correct minor errors to the DBE Bid Item Breakdown for a period up to five calendar days after bid opening (not including Saturdays, Sundays and Holidays). DBE Bid Item Breakdowns that are still incorrect after the correction period will be determined to be non-responsive.

The DBE Bid Item Breakdown will not be included as part of the executed Contract.

1-02.10 Withdrawing, Revising, or Supplementing Proposal
(July 23, 2015 APWA GSP)

Delete this section, and replace it with the following:

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

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

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

1-02.12 Public Opening Of Proposal
(July 14, 2016 SkagitR)

Section 1-02.12 is supplemented with the following:

Sealed bids shall be received at the time and location specified in the Call for Bids, unless modified by addenda.

1-02.13 Irregular Proposals
(September 3, 2024 APWA GSP)

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
   a. The Bidder is not prequalified when so required;
   b. The Bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
   c. A price per unit cannot be determined from the Bid Proposal;
   d. The Proposal form is not properly executed;
   e. The Bidder fails to submit or properly complete a subcontractor list (WSDOT Form 271-015), if applicable, as required in Section 1-02.6;

f. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification (WSDOT Form 272-056), if applicable, as required in Section 1-02.6;
g. The Bidder fails to submit Written Confirmations (WSDOT Form 422-031) from each DBE firm listed on the Bidder's completed DBE Utilization Certification that they are in agreement with the bidder's DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
h. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award in accordance with Section 1-07.11;
i. The Bidder fails to submit a DBE Bid Item Breakdown (WSDOT Form 272-054), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
j. The Bidder fails to submit the Bidder Questionnaire (DOT Form 272-022), if applicable as required by Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions; or
k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.

2. A Proposal may be considered irregular and may be rejected if:
   a. The Proposal does not include a unit price for every Bid item;
   b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
   c. The authorized Proposal Form furnished by the Contracting Agency is not used or is altered;
   d. The completed Proposal form contains unauthorized additions, deletions, alternate Bids, or conditions;
   e. Receipt of Addenda is not acknowledged;
   f. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
   g. If Proposal form entries are not made in ink.

1-02.14 Disqualification of Bidders

(May 17, 2018 APWA GSP, Option A)

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended.

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). To assess bidder responsibility, the Contracting Agency reserves the right to request documentation as needed from the Bidder and third parties concerning the Bidder's compliance with the mandatory bidder responsibility criteria.

If the Contracting Agency determines the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1) and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

Award and Execution of Contract

1-03.1 Consideration of Bids

(December 30, 2022 APWA GSP)

Revise the first paragraph to read:

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

1-03.1(1) Identical Bid Totals

(December 30, 2022 APWA GSP)

Revise this section to read:

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

1-03.3 Execution of Contract

(July 8, 2024 APWA GSP Option A)

Revise this section to read:

Within 3 calendar days of Award date (not including Saturdays, Sundays and Holidays), the successful Bidder shall provide the information necessary to execute the Contract to the Contracting Agency. The Bidder shall send the contact information, including the full name, email address, and phone number, for the authorized signer and bonding agent to the Contracting Agency.

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within 21 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

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

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

1-03.4 Contract Bond

(July 23, 2015 APWA GSP)

Delete the first paragraph and replace it with the following:

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

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
   a. Is registered with the Washington State Insurance Commissioner, and
   b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation

to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:

a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or

b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;

4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

1-03.7 Judicial Review

(December 30, 2022 APWA GSP)

Revise this section to read:

All decisions made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

Scope of the Work

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

(December 30, 2022 APWA GSP)

Revise the second paragraph to read:

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

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

1-04.4 Changes

(January 19, 2022 APWA GSP)

The first two sentences of the last paragraph of Section 1-04.4 are deleted.

Control of Work

Conformity with and Deviations from Plans and Stakes

Section 1-05.4 is supplemented with the following:

(April 2025 NSD SP)

1-05.4(1) Contractor Surveying – Channel Work

All survey necessary to establish primary and secondary control for the construction of the stream channel, instream wood placement, and slope stabilization grading shall be the responsibility of the Contractor. The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for construction of the stream channel, instream wood placement, and slope stabilization grading. All calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. Electronic copies of alignments, surfaces, and/or stakeout points will be made available upon request by the Contractor to supplement the stakeout points provided in the Plans.

The meaning of words and terms used in this provision shall be as listed in “Definitions of Surveying and Associated Terms” current edition, published by the American Congress on Surveying and Mapping and the American Society of Civil Engineers.

The survey Work shall include but not be limited to the following:

1. Establishing primary horizontal and vertical control and expanding into secondary control by adding stakes and hubs as well as additional survey control needed to construct the stream channel, instream wood placement, or slope stabilization grading. Provide descriptions of all control to the Contracting Agency. The description shall include coordinates and elevations of all control points.

2. Establish the centerline and other relevant breaklines for all proposed channels.

3. Establish the locations and elevations for all log triangles, bank rootwads, and boulder sills shown in the Plans.

4. Establish the locations and elevations for all channel bed foundations by placing hubs, stakes, or marks at the corners and/or offsets.

5. Establish construction stakes clearly depicting the finished lines and grades shown in the Plans for all slope stabilization work, including offsets as required to allow for construction and inspection of the Work.

6. For all other types of construction related to stream channel construction included in the Plans, provide staking and layout as necessary to adequately locate, construct, and check the specific construction activity.

The Contractor shall provide the Engineer copies of any calculations and staking data when requested.

To Contractor shall ensure a surveying accuracy and staking that allows completion of all Work within the following tolerances:

	Vertical	Horizontal
Streambed foundations	±0.10 ft	±0.25 ft
Boulder sills	±0.10 ft	±0.25 ft
Log triangles and bank structures	±0.25 ft	±0.50 ft
Stabilized streambank slopes	±0.25 ft	±0.50 ft

The Engineer may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

Payment

Payment will be made for the following bid item when included in the proposal:

"Channel Surveying", lump sum.

The lump sum contract price for "Channel Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

(September 3, 2024)

Contractor Surveying - Structure

The Contracting Agency has provided primary survey control in the Plans.

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of bridges, noise walls, retaining walls, buried structures, and marine structures. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments noted on the plans "DO NOT DISTURB" shall be protected throughout the length of the project or be replaced at the Contractor's expense.

Detailed survey records shall be maintained, including a description of the work performed on each shift, the methods utilized, and the control points used. The record shall be adequate to allow the survey to be reproduced. A copy of each day's record shall be provided to the Engineer within three working days after the end of the shift.

The meaning of words and terms used in this provision shall be as listed in "Definitions of Surveying and Associated Terms" current edition, published by the American Congress on Surveying and Mapping and the American Society of Civil Engineers.

The survey work by the Contractor shall include but not be limited to the following:

1. Verify the primary horizontal and vertical control furnished by the Contracting Agency and expand into secondary control by adding stakes and hubs as well as additional survey control needed for the project. Provide descriptions of secondary control to the Contracting Agency. The description shall include coordinates and elevations of all secondary control points.

2. Establish, by placing hubs and/or marked stakes, the location with offsets of foundation shafts and piles.

3. Establish offsets to footing centerline of bearing for structure excavation.

4. Establish offsets to footing centerline of bearing for footing forms.

5. Establish wing wall, retaining wall, noise wall, and buried structure horizontal alignment.

6. Establish retaining wall top of wall profile grade.

7. Establish buried structure profile grade.

8. Establish elevation benchmarks for all substructure formwork.

9. Check elevations at top of footing concrete line inside footing formwork immediately prior to concrete placement.

10. Check column location and pier centerline of bearing at top of footing immediately prior to concrete placement.

11. Establish location and plumbness of column forms, and monitor column plumbness during concrete placement.

12. Establish pier cap and crossbeam top and bottom elevations and centerline of bearing.

13. Check pier cap and crossbeam top and bottom elevations and centerline of bearing prior to and during concrete placement.

14. Establish grout pad locations and elevations.

15. Establish structure bearing locations and elevations, including locations of anchor bolt assemblies.

16. Establish box girder bottom slab grades and locations.

17. Establish girder and/or web wall profiles and locations.

18. Establish diaphragm locations and centerline of bearing.

19. Establish roadway slab alignment, grades and provide dimensions from top of girder to top of roadway slab. Set elevations for deck paving machine rails.

20. Establish traffic barrier and curb profile.

21. Profile all girders prior to the placement of any deadload or construction live load that may affect the girder's profile.

22. Establish locations for marine structures including fixed and floating berthing structures, vehicle and pedestrian foundations and spans, and marine-based buildings.

The Contractor shall provide the Contracting Agency copies of any calculations and staking data when requested by the Engineer.

The Contractor shall submit the computed elevations at the top of bridge decks as a Type 2 Working Drawing. To compute top of bridge deck elevations, elevations shall be taken at the tenth points along the centerline of each girder web from center-to-center of bearing. For girders exceeding 100 feet in length, the elevations shall be taken at equivalent intervals not to exceed 10 feet.

The Contractor shall ensure a surveying accuracy within the following tolerances:

		Vertical	Horizontal
1.	Stationing on structures		±0.02 feet
2.	Alignment on structures		±0.02 feet
3.	Superstructure elevations	±0.01 feet variation from plan elevation	
4.	Substructure	±0.02 feet variation from Plan grades.	

Buried structures shall be within the tolerances described in Section 6-20.3.

The Contracting Agency may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

When staking the following items, the Contractor shall perform independent checks from different secondary control to ensure that the points staked for these items are within the specified survey accuracy tolerances:

Piles
Shafts
Footings
Columns

The Contractor shall calculate coordinates for the points associated with piles, shafts, footings and columns. The Contracting Agency will verify these coordinates prior to issuing approval to the Contractor for commencing with the survey work. The Contracting

Agency will require up to seven calendar days from the date the data is received to issuing approval.

Contract work to be performed using contractor-provided stakes shall not begin until the stakes are approved by the Contracting Agency. Such approval shall not relieve the Contractor of responsibility for the accuracy of the stakes.

Payment

Payment will be made for the following bid item when included in the proposal:

"Structure Surveying", lump sum.

The lump sum contract price for "Structure Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

(January 13, 2021)
Contractor Surveying - Roadway

The Contracting Agency has provided primary survey control in the Plans.

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the roadbed, drainage, surfacing, paving, channelization and pavement marking, illumination and signals, guardrails and barriers, and signing. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments noted on the plans “DO NOT DISTURB” shall be protected throughout the length of the project or be replaced at the Contractors expense.

Detailed survey records shall be maintained, including a description of the work performed on each shift, the methods utilized, and the control points used. The record shall be adequate to allow the survey to be reproduced. A copy of each day's record shall be provided to the Engineer within three working days after the end of the shift.

The meaning of words and terms used in this provision shall be as listed in "Definitions of Surveying and Associated Terms" current edition, published by the American Congress on Surveying and Mapping and the American Society of Civil Engineers.

The survey work shall include but not be limited to the following:

1. Verify the primary horizontal and vertical control furnished by the Contracting Agency, and expand into secondary control by adding stakes and hubs as well as additional survey control needed for the project. Provide descriptions of secondary control to the Contracting Agency. The description shall include coordinates and elevations of all secondary control points.

2. Establish, the centerlines of all alignments, by placing hubs, stakes, or marks on centerline or on offsets to centerline at all curve points (PCs, PTs, and PIs) and at points on the alignments spaced no further than 50 feet.

3. Establish clearing limits, placing stakes at all angle points and at intermediate points not more than 50 feet apart. The clearing and grubbing limits shall be 5 feet beyond the toe of a fill and 10 feet beyond the top of a cut unless otherwise shown in the Plans.

4. Establish grading limits, placing slope stakes at centerline increments not more than 50 feet apart. Establish offset reference to all slope stakes. If Global Positioning Satellite (GPS) Machine Controls are used to provide grade control, then slope stakes may be omitted at the discretion of the Contractor

5. Establish the horizontal and vertical location of all drainage features, placing offset stakes to all drainage structures and to pipes at a horizontal interval not greater than 25 feet.

6. Establish roadbed and surfacing elevations by placing stakes at the top of subgrade and at the top of each course of surfacing. Subgrade and surfacing stakes shall be set at horizontal intervals not greater than 50 feet in tangent sections, 25 feet in curve sections with a radius less than 300 feet, and at 10-foot intervals in intersection radii with a radius less than 10 feet. Transversely, stakes shall be placed at all locations where the roadway slope changes and at additional points such that the transverse spacing of stakes is not more than 12 feet. If GPS Machine Controls are used to provide grade control, then roadbed and surfacing stakes may be omitted at the discretion of the Contractor.

7. Establish intermediate elevation benchmarks as needed to check work throughout the project.

8. Provide references for paving pins at 25-foot intervals or provide simultaneous surveying to establish location and elevation of paving pins as they are being placed.

9. For all other types of construction included in this provision, (including but not limited to channelization and pavement marking, illumination and signals, guardrails and barriers, and signing) provide staking and layout as necessary to adequately locate, construct, and check the specific construction activity.

10. Contractor shall determine if changes are needed to the profiles or roadway sections shown in the Contract Plans in order to achieve proper smoothness and drainage where matching into existing features, such as a smooth transition from new pavement to existing pavement. The Contractor shall submit these changes to the Engineer for review and approval 10 days prior to the beginning of work.

The Contractor shall provide the Contracting Agency copies of any calculations and staking data when requested by the Engineer.

The Contractor shall ensure a surveying accuracy within the following tolerances:

	Vertical	Horizontal
Slope stakes	±0.10 feet	±0.10 feet
Subgrade grade stakes set 0.04 feet below grade	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
Stationing on roadway	N/A	±0.1 feet
Alignment on roadway	N/A	±0.04 feet
Surfacing grade stakes	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
Roadway paving pins for surfacing or paving	±0.01 feet	±0.2 feet (parallel to alignment) ±0.1 feet (normal to alignment)

The Contracting Agency may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

When staking roadway alignment and stationing, the Contractor shall perform independent checks from different secondary control to ensure that the points staked are within the specified survey accuracy tolerances.

The Contractor shall calculate coordinates for the alignment. The Contracting Agency will verify these coordinates prior to issuing approval to the Contractor for commencing with the work. The Contracting Agency will require up to seven calendar days from the date the data is received.

Contract work to be performed using contractor-provided stakes shall not begin until the stakes are approved by the Contracting Agency. Such approval shall not relieve the Contractor of responsibility for the accuracy of the stakes.

Stakes shall be marked in accordance with Standard Plan A10.10. When stakes are needed that are not described in the Plans, then those stakes shall be marked, at no additional cost to the Contracting Agency as ordered by the Engineer.

Payment

Payment will be made for the following bid item when included in the proposal:

"Roadway Surveying", lump sum.

The lump sum contract price for "Roadway Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

Supplement this section with the following:

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

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

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

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

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

1-05.11 Final Inspection

Delete this section and replace it with the following:

1-05.11 Final Inspections and Operational Testing

(October 1, 2005 APWA GSP)

1-05.11(1) Substantial Completion Date

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

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

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

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

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

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

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.
The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

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

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final

inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

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

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

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

Delete the sixth and seventh paragraphs of this section.

1-05.15 Method of Serving Notices
(January 4, 2024 APWA GSP)

Revise the second paragraph to read:

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

Add the following new section:

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

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

Add the following new section:

1-05.18 Record Drawings

(March 8, 2013 APWA GSP)

The Contractor shall maintain one set of full size plans for Record Drawings, updated with clear and accurate red-lined field revisions on a daily basis, and within 2 business days after receipt of information that a change in Work has occurred. The Contractor shall not conceal any work until the required information is recorded.

This Record Drawing set shall be used for this purpose alone, shall be kept separate from other Plan sheets, and shall be clearly marked as Record Drawings. These Record Drawings shall be kept on site at the Contractor's field office, and shall be available for review by the Contracting Agency at all times. The Contractor shall bring the Record Drawings to each progress meeting for review.

The preparation and upkeep of the Record Drawings is to be the assigned responsibility of a single, experienced, and qualified individual. The quality of the Record Drawings, in terms of accuracy, clarity, and completeness, is to be adequate to allow the Contracting Agency to modify the computer-aided drafting (CAD) Contract Drawings to produce a complete set of Record Drawings for the Contracting Agency without further investigative effort by the Contracting Agency.

The Record Drawing markups shall document all changes in the Work, both concealed and visible. Items that must be shown on the markups include but are not limited to:

- Actual dimensions, arrangement, and materials used when different than shown in the Plans.
- Changes made by Change Order or Field Order.
- Changes made by the Contractor.
- Accurate locations of storm sewer, sanitary sewer, water mains and other water appurtenances, structures, conduits, light standards, vaults, width of roadways, sidewalks, landscaping areas, building footprints, channelization and pavement markings, etc. Include pipe invert elevations, top of castings (manholes, inlets, etc.).

If the Contract calls for the Contracting Agency to do all surveying and staking, the Contracting Agency will provide the elevations at the tolerances the Contracting Agency requires for the Record Drawings.

When the Contract calls for the Contractor to do the surveying/staking, the applicable tolerance limits include, but are not limited to the following:

	Vertical	Horizontal
As-built sanitary & storm invert and grate elevations	± 0.01 foot	± 0.01 foot
As-built monumentation	± 0.001 foot	± 0.001 foot
As-built waterlines, inverts, valves, hydrants	± 0.10 foot	± 0.10 foot
As-built ponds/swales/water features	± 0.10 foot	± 0.10 foot
As-built buildings (fin. Floor elev.)	± 0.01 foot	± 0.10 foot

As-built gas lines, power, TV, Tel, Com	± 0.10 foot	± 0.10 foot
As-built signs, signals, etc.	N/A	± 0.10 foot

Making Entries on the Record Drawings:

- Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to the following color code:
- Additions - Red
- Deletions - Green
- Comments - Blue
- Dimensions - Graphite
- Provide the applicable reference for all entries, such as the change order number, the request for information (RFI) number, or the approved shop drawing number.
- Date all entries.
- Clearly identify all items in the entry with notes similar to those in the Contract Drawings (such as pipe symbols, centerline elevations, materials, pipe joint abbreviations, etc.).

The Contractor shall certify on the Record Drawings that said drawings are an accurate depiction of built conditions, and in conformance with the requirements detailed above. The Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

Payment will be made for the following bid item:

Record Drawings (Minimum Bid $ *** 10,000 ***)	Lump Sum

Payment for this item will be made on a prorated monthly basis for work completed in accordance with this section up to 75% of the lump sum bid. The final 25% of the lump sum item will be paid upon submittal and approval of the completed Record Drawings set prepared in conformance with these Special Provisions.

A minimum bid amount has been entered in the Bid Proposal for this item. The Contractor must bid at least that amount.

Control of Material

Section 1-06 is supplemented with the following:

Buy America Requirements

(March 20, 2025)

General Requirements

In accordance with Buy America requirements contained in 23 CFR 635.410 and 2 CFR 184, the following materials must be produced in the United States:

1. All Iron or Steel Products used in the project. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. All Manufactured Products used in the project. This means the manufactured product was manufactured in the United States.

3. All Construction Materials used in the project. This means that all manufacturing processes for the construction material occurred in the United States.

An article, material, or supply will be classified in one of four categories: 1) Iron or Steel Product, 2) Manufactured Product, 3) Construction Material, or 4) Excluded Material. Only a single category will apply to an item except as follows:

1. With respect to precast concrete products that are classified as Manufactured Products, the components of precast concrete products that consist wholly or predominantly of iron, steel, or combination of both shall meet the requirements for and be tracked as an Iron or Steel Product. The item shall also meet the requirements for a Manufactured Product, and the cost of the iron or steel components shall be included in determining if the Manufactured Product was produced in the United States.

2. With respect to intelligent transportation systems and other electronic hardware systems that are classified as Manufactured Products, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron, steel, or a combination of both, shall meet the requirements for and be tracked as an Iron or Steel Products. The item shall also meet the requirements for a Manufactured Product and the cost of the iron or steel components shall be included in determining if the manufactured product was produced in the United States.

Some contract items are composed of multiple parts that may fall into different categories. Individual components will be categorized as a Construction Material, a Manufactured Product, an Iron or Steel Product, or an excluded material based on their composition when they arrive at the staging area or work site.

Definitions

1. Construction Material: Defined as any article, material, or supply brought to the construction site for incorporation into the final product. Construction materials include an article, material, or supply that is or consists primarily of:

   a. Non-ferrous metals including all manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly;

   b. Plastic and polymer-based products including all manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form);

   c. Glass including all manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting);

d. Fiber optic cable (includes drop cable) including all manufacturing processes, from initial ribboning (if applicable), through buffering, fiber stranding and jacketing, (fiber optic cable also includes the standards for glass and optical fiber);

e. Optical fiber including all manufacturing processes, from the initial preform fabrication stage, though the completion of the draw;

f. Lumber including all manufacturing processes, from initial debarking through treatment and planing;

g. Drywall including all manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels; or

h. Engineered wood including all manufacturing processes from the initial combination of constituent materials until the wood product is in its final form.

If a Construction Material is not manufactured in the United States it shall be considered a Foreign Construction Material.

2. Excluded Material: A material where Buy America requirements do not apply. This includes the following:

   a. Materials excluded by Section 70917(c) of the Buy America, Build America Act with respect to aggregates this includes cement and cementitious materials, aggregates such as stone, sand, or gravel or aggregate binding agents or additives. These materials shall be classified as excluded materials based on the composition when brought to the work site. It also includes combinations of these excluded materials when mixtures of Excluded Materials are delivered to the work site without final form for incorporation into the project (i.e. wet concrete and HMA). If they are formed prior to delivery, they are a Manufactured Product and not an Excluded Material.

   b. Temporary materials that are not being permanently incorporated into the project.

   c. Raw or minimal processed materials where the article, material, or supply does not fall into any of the categories, as it is not a Manufactured Product, an Iron or Steel Product, or a Construction Material and when these materials are delivered to the work site without final form for incorporation into the product (i.e. seed mix and topsoil). If they are formed prior to delivery, they are a Manufactured Product and not an Excluded Material.

3. Iron or Steel Product: An article, material, or supply that consist of wholly or predominantly of iron or steel or a combination of both. To be considered predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is based on a good faith estimate of the cost of the iron or steel components.

4. Manufactured Product: A Manufactured Product includes any item produced as a result of the manufacturing process. Items that should be treated as a manufactured product (rather than a construction material) are: 1) items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and 2) items that include at least one of the listed construction materials as defined above, combined with a material that is not listed through a manufacturing process.

   If a product is not an Iron or Steel Product, a Construction Material, or an Excluded Material, it is a Manufactured Product.

5. United States: To further define the coverage, a domestic product is a manufactured steel construction material that was produced in one of the 50 states, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

Iron or Steel Product Requirements

Iron or Steel Products that are permanently incorporated into the project shall consist of American-made materials only. Buy America requirements do not apply to temporary steel or iron items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the foreign material used does not exceed one-tenth of one percent of the total contract cost or $2,500.00, whichever is greater.

American-made material is defined as material having all manufacturing processes occurring domestically.

If domestically produced steel billets or iron ingots are exported outside of the United States, as defined above, for any manufacturing process then the resulting product does not conform to the Buy America requirements. Additionally, products manufactured domestically from foreign source steel billets or iron ingots do not conform to the Buy America requirements because the initial melting and mixing of alloys to create the material occurred in a foreign country.

Manufacturing begins with the initial melting and mixing and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.

Due to a nationwide waiver, Buy America requirements do not apply to raw materials (iron ore and alloys), scrap (recycled steel or iron), and pig iron ore processed, pelletized, and reduced iron ore.

The following are considered to be steel manufacturing processes:

1. Production of steel by any of the following processes:

a. Open hearth furnace.

b. Basic oxygen.

c. Electric furnace.

d. Direct reduction.

2. Rolling, heat treating, and any other similar processing.

3. Fabrication of the products:

a. Spinning wire into cable or strand.

b. Corrugating and rolling into culverts.

c. Shop fabrication.

A certification of materials origin will be required for all iron or steel products prior to such items being incorporated into the permanent work. The Contractor will not receive payment until the certification is received by the Engineer. The certification shall be on WSDOT Form 350-109 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-109.

Manufactured Products

Due to a nationwide waiver, Buy America requirements do not apply to Manufactured Products except as follows:

1. When a precast concrete product is classified as a Manufactured Product, the components that are an Iron or Steel Product shall follow the “Iron and Steel Requirements” of this Specification.

2. When an electronic hardware system such as an intelligent transportation system is classified as a Manufactured Product, the cabinets and the other enclosures of such systems that are an Iron or Steel Product shall follow the “Iron and Steel Requirements” of this Specification.

Construction Material Requirements

A Contractor provided certification of materials origin will be required before each progress estimate or payment. The Contractor will not receive payment until the certification is received by the Engineer. The Contractor shall certify that all Construction Materials installed during the current progress estimate period meet the Buy America requirements. The certification shall be on WSDOT Form 350-111 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-111.

Waiver for De Minimis Costs

Minor amounts of Foreign Construction Materials may be utilized in this project, provided that the total cost of the Foreign Construction Materials does not exceed $1,000,000 and does not exceed 5 percent of the total applicable material costs calculated as follows:

$$\frac{Total\ cost\ of\ Foreign\ Construction\ Materials}{Total\ applicable\ material\ costs} < 0.05$$

The total applicable material costs shall be the sum of the costs all Construction Materials, all Iron or Steel Products, and all Manufactured Products. Total applicable material costs does not include Excluded Materials.

1-06.6 Recycled Materials

(January 4, 2016 APWA GSP)

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

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

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

Legal Relations and Responsibilities to the Public

1-07.1 Laws to be Observed

(October 1, 2005 APWA GSP)

Supplement this section with the following:

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

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

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

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

and shall not, be intended to include review and adequacy of the Contractor's safety measures in, on, or near the project site.

1-07.2 State Taxes

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

1-07.2 State Sales Tax

(June 27, 2011 APWA GSP)

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

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

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

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

tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

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

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

1-07.2(3) Services

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

Environmental Regulations

Section 1-07.5 is supplemented with the following:

(September 20, 2010)
Environmental Commitments

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the various documents referenced in the Special Provision **Permits and Licenses**. Throughout the work, the Contractor shall comply with the following requirements:

(April 1, 2019)
The Contractor shall notify the Engineer a minimum of *** fifteen (15) *** calendar days prior to commencing any work in sensitive areas, mitigation areas, and wetland buffers. Installation of construction fencing is excluded from this notice requirement.

(August 3, 2009)
Payment

All costs to comply with this special provision for the environmental commitments and requirements are incidental to the contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the contract.

State Department of Fish And Wildlife

Section 1-07.5(2) is supplemented with the following:

(April 2, 2018)
The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the Washington State Department of Fish and Wildlife. Throughout the work, the Contractor shall comply with the following requirements:

(March 12, 2025 SkagitR)
The Contractor may begin Work below the Ordinary High Water Line on *** August 1st *** and must complete all the Work by *** October 1st of the same calendar year. If necessary, the Contractor may resume Work below the Ordinary High Water Line during the period of August 1st through October 1st in subsequent calendar years, as needed, until the final deadline of October 1, 2028 ***.

(April 2, 2018)
All costs to comply with this special provision are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the Contract.

State Department of Ecology

Section 1-07.5(3) is supplemented with the following:

(April 2, 2018)
The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the Washington State Department of Ecology. Throughout the work, the Contractor shall comply with the following requirements:

(April 1, 2019)
Stormwater, dewatering water, or other authorized non-stormwater discharges that has come into contact with pH modifying substances such as concrete rubble, cast concrete or amended soils, need to be maintained between 6.5 – 8.5 standard units (su). If pH exceeds 8.5 su, the Contractor shall immediately discontinue work and initiate treatment to prevent discharges outside the acceptable range from occurring. All neutralization methods used shall be in accordance with the permit. Work may resume once treatment has been implemented and pH of the stormwater or authorized non-stormwater discharge is between 6.5 - 8.5 su or it can be demonstrated that high pH waters will not discharge to surface waters.

Stormwater, dewatering water, and other authorized non-stormwater discharges are monitored weekly for compliance with the turbidity benchmark (25 nephelometric turbidity units (ntu)) and the phone reporting trigger value (250 ntu) by the Contracting Agency. When the turbidity benchmark is breached, the best management practices (BMPs) installed on-site are not working adequately and need to be adapted, maintained or more BMPs shall be installed. When the turbidity phone reporting trigger value is breached, immediate action is required in order to lower the turbidity to $\leq$25 ntu or to eliminate the discharge. Daily follow-up discharge samples will be collected at all locations where a discharge of 250 ntu or higher was collected unless the discharge was stopped or eliminated.

(April 2, 2018)
All costs to comply with this special provision are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the Contract.

U.S. Army Corps of Engineers

Section 1-07.5(5) is supplemented with the following:

(April 2, 2018)
The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the U.S. Army Corps of Engineers. Throughout the work, the Contractor shall comply with the following requirements:

(February 25, 2013)
Temporary structures and dewatering of areas under the jurisdiction of the U.S. Army Corps of Engineers must maintain normal downstream flows and prevent upstream and downstream flooding to the maximum extent practicable.

(April 2, 2018)
All costs to comply with this special provision are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the Contract.

Permits and Licenses

Section 1-07.6 is supplemented with the following:

(*March 6, 2025 SkagitR*)
The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the permit(s) is attached as an appendix for informational purposes. Copies of these permits, including a copy of the Transfer of Coverage form, when applicable, are required to be onsite at all times.

Contact with the permitting agencies, concerning the below-listed permit(s), shall be made through the Engineer with the exception of when the Construction Stormwater General Permit coverage is transferred to the Contractor, direct communication with the Department of Ecology is allowed. The Contractor shall be responsible for obtaining Ecology's approval for any Work requiring additional approvals (e.g. Request for Chemical Treatment Form). The Contractor shall obtain additional permits as necessary. All costs to obtain and comply with additional permits shall be included in the applicable Bid items for the Work involved.

***

NAME OF DOCUMENT	PERMITTING AGENCY	PERMIT REFERENCE NO.
Hydraulic Project Approval (HPA)	Washington Department of Fish & Wildlife	2023-4-590+01
Nationwide Permit (NWP) #27	US Army Corps of Engineers (USACE)	NWS 2023-92
State Environmental Policy Act (SEPA) Mitigated Determination of Non-Significance	Skagit County Public Works (SCPW)	PL22-0561
Construction Stormwater Permit	Washington State Department of Ecology (WSDOE)	WAR314525 Coverage Letter Received

***

1-07.6(1) Construction Stormwater General Permit

Stormwater Best Management Practices (BMP's) for controlling runoff and soil erosion shall be used on this project and comply with the standards of Washington State's Department of Ecology (DOE) Construction Stormwater General Permit. Information concerning BMP requirements and proper implementation may be obtained by referring to Volume II of DOE's 2024 Stormwater Management Manual for Western Washington and these Contract Documents.

The Contract Agency has applied for an NPDES Construction Stormwater General Permit utilizing the BMPs illustrated in the Plans; the application is currently under review. A copy of the application can be made available upon request. The cost of the Construction Stormwater General Permit for this project will be paid for by the Contracting Agency.

When the permit is issued, and before beginning any ground-breaking activities or mobilizing equipment or materials to the site, the Contractor shall submit an application to the DOE to receive a "Transfer of Coverage" for the Construction Stormwater General Permit issued for this project. A copy of the documentation showing transfer of responsibility from the Contract Agency to the Contractor shall be returned to the Contract Agency.

The Contractor shall develop a Stormwater Pollution Prevention Plan(s) (SWPPP) tailored to their anticipated means and methods for review and approval by the Contract Agency. The Contractor shall modify the plan as necessary to suit the proposed site construction requirements, all permit requirements, and shall keep a copy of the updated SWPPP on site throughout construction.

Upon full site stabilization and in compliance with permit requirements, the Contractor shall submit a "Notice of Termination" for the Construction Stormwater General Permit to the DOE for review and approval. A copy of the documentation showing the approved permit termination shall be returned to the Contract Agency for processing together with the Contract Documents.

Payment

All costs associated with applying for transfer of coverage, developing a SWPPP, complying with, modifying as appropriate, updating, reporting, keeping required records, and terminating the permit as described in this section shall be made incidental to the "SPCC Plan" bid item.

Load Limits

Section 1-07.7 is supplemented with the following:

(March 13, 1995)
If the sources of materials provided by the Contractor necessitates hauling over roads other than State Highways, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes.

High-Visibility Apparel

The third and fourth paragraphs of Section 1-07.8 are revised to read

(November 4, 2024)
High-visibility garments shall always be the outermost garments worn in a manner to ensure 360 degrees of uninterrupted background and retroreflective material encircling the torso.

High-visibility garments shall be labeled as, and in a condition compliant with the ANSI/ISEA 107-2015 publication entitled “American National Standard for High-Visibility Safety Apparel and Accessories,” or equivalent revisions.

Traffic Control Personnel

Section 1-07.8(1) is revised to read:

(November 4, 2024)
All personnel performing the Work described in Section 1-10 (including traffic control supervisors, flaggers, and others performing traffic control labor of any kind) shall comply with the following:

1. During daylight hours with clear visibility, workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; and a high visibility hardhat that is white, yellow, yellow-green, orange, or red in color; and

2. During hours of darkness (½ hour before sunset to ½ hour after sunrise) or other low-visibility conditions (snow, fog, etc.), workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; a high-visibility lower garment meeting ANSI/ISEA 107 Class E, and a high visibility hardhat marked with at least 12 square inches of retroreflective material applied to provide 360 degrees of visibility.

Wages

General

Section 1-07.9(1) is supplemented with the following:

(January 6, 2025)
The Federal wage rates incorporated in this contract have been established by the Secretary of Labor under United States Department of Labor General Decision No. WA20250001.

The State rates incorporated in this contract are applicable to all construction activities associated with this contract.

1-07.9(3) Apprentices

(October 28, 2025 SkagitR)

Supplement this section with the following:

Apprentice Utilization

This Contract includes an Apprentice Utilization Requirement. Fifteen percent or more of project Labor Hours shall be performed by Apprentices unless Good Faith Efforts are accepted**.** Apprentice Utilization will be determined using the Department of Labor and Industries (L&I) online Prevailing Wage Intent & Affidavit (PWIA) system.

Definitions

For the purposes of this specification the following definitions apply:

1. Apprentice is a person enrolled in a State-approved Apprenticeship Training Program.

2. Apprentice Utilization is the apprentice labor hours, on the project, expressed as a percentage of project Labor Hours based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up.

3. Apprentice Utilization Requirement is the minimum percentage of apprentice labor hours required by the Contract.

4. Good Faith Effort(s) (GFE) describes the Contractor's efforts to meet the Apprentice Utilization Requirement including but not limited to the specific steps as described elsewhere in this specification.

5. Labor Hours are the total hours performed by all workers receiving an hourly wage who are subject to prevailing wage requirements for work performed on the Contract as defined by RCW 39.04.310. Labor Hours are determined based on the scope of work performed by the individuals, rather than the title of their occupations in accordance with WAC 296-127.

6. State-approved Apprenticeship Training Program is an apprenticeship training program approved by the Washington State Apprenticeship Council.

7. Apprentice Wage Rates are the applicable wage rates that are to be paid for an apprentice registered in a training program, separate from Journey Level rates, as set by the Washington State Apprenticeship Training Council and Washington State Department of Labor and Industries (L&I).

Electronic Reporting

The Contractor shall use the PWIA System to submit the "Apprentice Utilization Plan". Reporting instructions are available in the application.

Apprentice Utilization Plan

The Contractor shall submit an "Apprentice Utilization Plan" by filling out the Apprentice Utilization Plan Form (WSDOT Form 424-004) within 30 calendar days of Contract execution, however no later than the preconstruction meeting, demonstrating how and when they intend to achieve the Apprentice Utilization Requirement. The Plan shall be in sufficient detail for the Engineer to track the Contractor's progress in meeting the utilization requirements. An Apprentice Utilization Plan shall be updated and resubmitted as the Work progresses or when requested by the Engineer.

If the Contractor is unable to demonstrate the ability to meet the Apprentice Utilization Requirement with their initial Apprentice Utilization Plan submission, an effort must be made to find additional registered apprentices to perform on the contract. If after attempts have been made at every tier and every scope, the Contractor must submit GFE documentation to the Contracting Agency. The Contractor shall actively seek out opportunities to meet the Apprentice Utilization Requirement during the construction Work.

Subcontracts

The Contractor must not require subcontractors to attain more than 15% of a subcontract's proposed labor hours for the subcontract's scope of work.

Contacts

The Contractor may obtain information on State-approved Apprenticeship Training Programs by using the Apprentice Registration and Tracking System (ARTS) https://secure.lni.wa.gov/arts-public/#/program-search or contacting the Department of Labor and Industries directly at:

Specialty Compliance and Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530 or by phone at (360) 902-5320.

Compliance

The Contractor is expected to make attempts to employ Apprentices and shall include the requirement in any subcontracts at any tier. If the Contractor is unable to achieve the Apprentice Utilization Requirement, the Contractor shall submit GFE documentation demonstrating the efforts and attempts they made. Final GFE documentation shall be submitted to the Contracting Agency after Substantial Completion but no later than 30 days after Physical Completion.

If the Contractor fails to actively attempt to employ Apprentices, submit GFE documentation, or if the Engineer does not approve the GFE, the Contractor will be assessed a penalty. The Engineer will provide the Contractor with a written notice at Final Acceptance of the project informing the Contractor of the failure to comply with this specification which will include a calculation of the penalty to be assessed as provided for in the Payment section in this special provision.

If the Contractor achieves the required Apprentice Utilization an incentive will be assessed with Final Payment.

Good Faith Efforts

The GFE shall document the attempts (efforts) the Contractor (and any subcontractor at any tier) made to meet the Apprentice Utilization Requirement. Emails, letters, or other written communications with letterhead, titles, and contact information are required.

Documentation must include one or more of the following accepted GFEs:

1. Demonstrated Lack of Availability of Apprentices. Correspondence from State-approved Apprenticeship Training Program(s), with project specific responses confirming there is a lack of availability of Apprentices for this project.

2. Demonstrated Disproportionate Ratio of Material/Equipment/Products to Labor Hours. Documentation explaining the bid includes a disproportionate high cost of material/equipment/products to Labor Hours. (E.g., a $2 M estimated contract includes $1 M or more in procurement costs of equipment to be installed.)

3. Demonstrated Lack of Necessary Labor Hours. Correspondence from a State-approved Apprentice Training Programs confirming there is not enough time in the project to meet required journey level to apprentice training ratios.
4. Demonstrated Lack of Available Approved Programs. Correspondence from State-approved Apprentice Training Programs, confirming there are no programs that train for the scopes included/anticipated on the project. Contractor and state programs to submit training program detail needs and details that could be used for future program creation.

5. Funding Precedent. Documentation that shows conflicting, more restrictive, or precedent requirements for other training on the Project. Examples include, but are not limited to, Tribal Employment Rights (TERO), Federal Training Hours, or Special Training that affect the ability to use state-registered apprentices.
6. Warranty Work. Documentation from Original Equipment Manufacturers, or similar, confirming that work performed must only be completed by certified journey-level installers or risk voiding warranty, or similar.

7. Other Effort. The Contractor may submit other evidence, documentation, or rationale for not being able to achieve the required Apprentice Utilization that are not covered in the other efforts named. Other efforts will still need to be corroborated by an independent, knowledgeable third-party.

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 continuously employed with the same Contractor/subcontractor 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 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.

Approving Good Faith Efforts

The Contracting Agency will review submitted Good Faith Efforts and issue a determination. The Engineer may request additional information, documentation, evidence or similar in order to approve such efforts. A determination by the Engineer is final. The approved Good Faith Efforts will be loaded into the PWIA system by the Contracting Agency.

Measurement

Apprenticeship hours used to calculate the item "Apprentice Incentive/Penalty", by estimate, will be measured for each hour of work performed by an apprentice as shown on the Monthly Apprentice Utilization Report, based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up. The calculation of incentive/penalty will be assessed based on the with the Final Payment for Contractors who meet the Apprentice Utilization Requirement without a reduction by Good Faith Effort.

Payment

Payment will be made for the following Bid Items when included in the proposal:

"Apprenticeship Incentive/Penalty", by Estimate.

When the Contractor meets the apprenticeship requirement of 15% an incentive will be assessed. When the Contractor fails to meet the Apprenticeship requirement of 15%, a penalty will be assessed for each hour that is not achieved, unless a Good Faith Effort is approved by the Contracting Agency.

Apprenticeship Incentive/Penalty will be calculated as described below:

Percent of requirement met	Incentive	Penalty per hour of unmet requirement
100%	$10,000.00	N/A
0% to 99%	N/A	$46.74

To provide a common proposal for all bidders, the Contracting Agency has entered an incentive amount in the proposal to become a part of the total bid by the Contractor.

The Contractor shall include all related costs in the unit Bid prices of the Contract, included but not limited to implementing, developing, documenting, and administering an apprenticeship utilization program, recording and reporting hours and all other costs to comply with this provision.

1-07.9(5)A Required Documents

(July 8, 2024 APWA GSP)

This section is revised to read as follows:

All Statements of Intent to Pay Prevailing Wages, Affidavits of Wages Paid and Certified Payrolls, including a signed Statement of Compliance for Federal-aid projects, shall be submitted to the Engineer and to the State L&I online Prevailing

Wage Intent & Affidavit (PWIA) system. When apprenticeship is a requirement of the contract, include in PWIA all apprentices.

1-07.11 Requirements for Nondiscrimination

(October 1, 2020 APWA GSP, Option A)

Supplement this section with the following:

Disadvantaged Business Enterprise Participation

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 and USDOT's official interpretations (i.e., Questions & Answers) apply to this Contract. As such, the requirements of this Contract are to make affirmative efforts to solicit DBEs, provide information on who submitted a Bid or quote and to report DBE participation monthly as described elsewhere in these Contract Provisions. No preference will be included in the evaluation of Bids/Proposals, no minimum level of DBE participation shall be required as a Condition of Award and Bids/Proposals may not be rejected or considered non-responsive on that basis.

DBE Abbreviations and Definitions

Broker – A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the Contract, or, persons/companies who arrange or expedite transactions.

Certified Business Description – Specific descriptions of work the DBE is certified to perform, as identified in the Certified Firm Directory, under the Vendor Information page.

Certified Firm Directory – A database of all Minority, Women, and Disadvantaged Business Enterprises. The on-line Directory is available to Contractors for their use in identifying and soliciting interest from DBE firms. The database is located under the Firm Certification section of the Diversity Management and Compliance System web page at: https://omwbe.diversitycompliance.com.

Commercially Useful Function (CUF)

49 CFR 26.55(c)(1) defines commercially useful function as: "*A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.*"

Contract – For this Special Provision only, this definition supplements Section 1-01.3. 49 CFR 26.5 defines contract as: "… a legally binding relationship

obligating a seller to furnish supplies or services (including, but not limited to, construction and professional services) and the buyer to pay for them. For purposes of this part, a lease is considered to be a contract."

Disadvantaged Business Enterprise (DBE) – A business firm certified by the Washington State Office of Minority and Women's Business Enterprises, as meeting the criteria outlined in 49 CFR 26 regarding DBE certification.

Force Account Work – Work measured and paid in accordance with Section 1-09.6.

Manufacturer (DBE) – A DBE firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract. A DBE Manufacturer shall produce finished goods or products from raw or unfinished material or purchase and substantially alters goods and materials to make them suitable for construction use before reselling them.

Regular Dealer (DBE) – A DBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of a Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a Regular Dealer, the DBE firm must be an established regular business that engages in as its principal business and in its own name the purchase and sale of the products in question. A Regular Dealer in such items as steel, cement, gravel, stone, and petroleum products need not own, operate or maintain a place of business if it both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by long-term formal lease agreements and not on an ad-hoc basis. Brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions shall not be regarded as Regular Dealers within the meaning of this definition.

DBE Goals

No DBE goals have been assigned as part of this Contract.

Affirmative Efforts to Solicit DBE Participation

The Contractor shall not discriminate on the grounds of race, color, sex, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. DBE firms shall have an equal opportunity to compete for subcontracts in which the Contractor enters into pursuant to this Contract.

Contractors are encouraged to:

1. Advertise opportunities for Subcontractors or suppliers in a timely and reasonably designed manner to provide notice of the opportunity to DBEs capable of performing the Work. All advertisements should include a Contract Provision encouraging participation by DBE firms. This may be accomplished through general advertisements (e.g. newspapers, journals, etc.) or by soliciting Bids/Proposals directly from DBEs.

2. Establish delivery schedules that encourage participation by DBEs and other small businesses.

3. Participate with a DBE as a joint venture.

DBE Eligibility/Selection of DBEs for Reporting Purposes Only

Contractor may take credit for DBEs utilized on this Contract only if the firm is certified for the Work being performed, and the firm performs a commercially useful function (CUF).

Absent a mandatory goal, all DBE participation that is attained on this project will be considered as "race neutral" participation and shall be reported as such.

Crediting DBE Participation

All DBE Subcontractors shall be certified before the subcontract on which they are participating is executed.

Be advised that although a firm is listed in the directory, there are cases where the listed firm is in a temporary suspension status. The Contractor shall review the OMWBE Suspended DBE Firms list. A DBE firm that is included on this list may not enter into new contracts that count towards participation.

DBE participation is only credited upon payment to the DBE.

The following are some definitions of what may be counted as DBE participation.

DBE Prime Contractor

Only take credit for that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE Prime Contractor performs with its own forces and is certified to perform.

DBE Subcontractor

Only take credit for that portion of the total dollar value of the subcontract equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces. The value of work performed by the DBE includes the cost of supplies and materials purchased by the DBE and equipment leased by the DBE, for its work on the contract. Supplies, materials or equipment obtained by a DBE that are not utilized or incorporated in the contract work by the DBE will not be eligible for DBE credit.

The supplies, materials, and equipment purchased or leased from the Contractor or its affiliate, including any Contractor's resources available to DBE subcontractors at no cost, shall not be credited.

DBE credit will not be given in instances where the equipment lease includes the operator. The DBE is expected to operate the equipment used in the performance of its work under the contract with its own forces. Situations where equipment is leased and used by the DBE, but payment is deducted from the Contractor's payment to the DBE is not allowed.

If a DBE subcontracts a portion of the Work of its contract to another firm, the value of the subcontracted Work may be credited only if the DBE's Lower-Tier

Subcontractor is also a DBE. Work subcontracted to a non-DBE shall not be credited.

Count expenditures toward race/gender-neutral participation only if the DBE is performing a CUF on the contract.

DBE Subcontract and Lower Tier Subcontract Documents

There must be a subcontract agreement that complies with 49 CFR Part 26 and fully describes the distinct elements of Work committed to be performed by the DBE. The subcontract agreement shall incorporate requirements of the primary Contract. Subcontract agreements of all tiers, including lease agreements shall be readily available at the project site for the Engineer review.

DBE Service Provider

The value of fees or commissions charged by a DBE Broker, a DBE behaving in a manner of a Broker, or another service provider for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance specifically required for the performance of the contract will only be credited as DBE participation, if the fee/commission is determined by the Contracting Agency to be reasonable and the firm has performed a CUF.

Temporary Traffic Control

If the DBE firm is being utilized in the capacity of only “Flagging”, the DBE firm must provide a Traffic Control Supervisor (TCS) and flagger, which are under the direct control of the DBE. The DBE firm shall also provide all flagging equipment (e.g. paddles, hard hats, and vests).

If the DBE firm is being utilized in the capacity of “Traffic Control Services”, the DBE firm must provide a TCS, flaggers, and traffic control items (e.g., cones, barrels, signs, etc.) and be in total control of all items in implementing the traffic control for the project. In addition, if the DBE firm utilizes the Contractor’s equipment, such as Transportable Attenuators and Portable Changeable Message Signs (PCMS) no DBE credit can be taken for supplying and operating the items.

Trucking

DBE trucking firm participation may only be credited as DBE participation for the value of the hauling services, not for the materials being hauled unless the trucking firm is also certified as a supplier. In situations where the DBE’s work is priced per ton, the value of the hauling service must be calculated separately from the value of the materials in order to determine DBE credit for hauling.

The DBE trucking firm must own and operate at least one licensed, insured and operational truck on the contract. The truck must be of the type that is necessary to perform the hauling duties required under the contract. The DBE receives credit for the value of the transportation services it provides on the Contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

The DBE may lease additional trucks from another DBE firm. The Work that a DBE trucking firm performs with trucks it leases from other certified DBE trucking firms qualify for 100% DBE credit

The trucking Work subcontracted to any non-DBE trucking firm will not receive credit for Work done on the project. The DBE may lease trucks from a non-DBE truck leasing company, but can only receive credit as DBE participation if the DBE uses its own employees as drivers.

DBE credit for a truck broker is limited to the fee/commission that the DBE receives for arranging transportation services.

Truck registration and lease agreements shall be readily available at the project site for the Engineer review.

DBE Manufacturer and DBE Regular Dealer

One hundred percent (100%) of the cost of the manufactured product obtained from a DBE Manufacturer can count as DBE participation.

Sixty percent (60%) of the cost of materials or supplies purchased from a DBE Regular Dealer may be credited as DBE participation. If the role of the DBE Regular Dealer is determined to be that of a pass-through, then no DBE credit will be given for its services. If the role of the DBE Regular Dealer is determined to be that of a Broker, then DBE credit shall be limited to the fee or commission it receives for its services. Regular Dealer status and the amount of credit is determined on a Contract-by-Contract basis.

Regular Dealer DBE firms must be approved before being used on a project. The WSDOT Approved Regular Dealer list published on WSDOT's Office of Equal Opportunity (OEO) web site must include the specific project for which approval is being requested. The Regular Dealer must submit the Regular Dealer Status Request form a minimum of five days prior to being utilized on the specific project.

Purchase of materials or supplies from a DBE which is neither a manufacturer nor a regular dealer, (i.e. Broker) only the fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, can count as DBE participation provided the fees are not excessive as compared with fees customarily allowed for similar services. Documentation will be required to support the fee/commission charged by the DBE. The cost of the materials and supplies themselves cannot be counted toward as DBE participation.

Note: Requests to be listed as a Regular Dealer will only be processed if the requesting firm is a material supplier certified by the Office of Minority and Women's Business Enterprises in a NAICS code that falls within the 42XXXX NAICS Wholesale code section.

Procedures Between Award and Execution

After Award and prior to Execution, the Contractor shall provide the additional information described below. Failure to comply shall result in the forfeiture of the Bidder's Proposal bond or deposit.

1. A list of all firms who submitted a bid or quote in attempt to participate in this project whether they were successful or not. Include the business name and mailing address.

   Note: The firms identified by the Contractor may be contacted by the Contracting Agency to solicit general information as follows: age of the firm and average of its gross annual receipts over the past three-years.

Procedures After Execution

Commercially Useful Function (CUF)

The Contractor may only take credit for the payments made for Work performed by a DBE that is determined to be performing a CUF. Payment must be commensurate with the work actually performed by the DBE. This applies to all DBEs performing Work on a project, whether or not the DBEs are COA, if the Contractor wants to receive credit for their participation. The Engineer will conduct CUF reviews to ascertain whether DBEs are performing a CUF. A DBE performs a CUF when it is carrying out its responsibilities of its contract by actually performing, managing, and supervising the Work involved. The DBE must be responsible for negotiating price; determining quality and quantity; ordering the material, installing (where applicable); and paying for the material itself. If a DBE does not perform "all" of these functions on a furnish-and-install contract, it has not performed a CUF and the cost of materials cannot be counted toward DBE COA Goal. Leasing of equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Contractor is not allowed. Lease agreements shall be readily available for review by the Engineer.

In order for a DBE traffic control company to be considered to be performing a CUF, the DBE must be in control of its work inclusive of supervision. The DBE shall employ a Traffic Control Supervisor who is directly involved in the management and supervision of the traffic control employees and services.

The DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of DBE participation.

The following are some of the factors that the Engineer will use in determining whether a DBE trucking company is performing a CUF:

- The DBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on the Contract. The owner demonstrates business related knowledge, shows up on site and is determined to be actively running the business.

- The DBE shall with its own workforce, operate at least one fully licensed, insured, and operational truck used on the Contract. The

drivers of the trucks owned and leased by the DBE must be exclusively employed by the DBE and reflected on the DBE's payroll.

- Lease agreements for trucks shall indicate that the DBE has exclusive use of and control over the truck(s). This does not preclude the leased truck from working for others provided it is with the consent of the DBE and the lease provides the DBE absolute priority for use of the leased truck.

- Leased trucks shall display the name and identification number of the DBE.

Joint Checking

A joint check is a check between a Subcontractor and the Contractor to the supplier of materials/supplies. The check is issued by the Contractor as payer to the Subcontractor and the material supplier jointly for items to be incorporated into the project. The DBE must release the check to the supplier, while the Contractor acts solely as the guarantor.

A joint check agreement must be approved by the Engineer and requested by the DBE involved using the DBE Joint Check Request Form (form # 272-053) prior to its use. The form must accompany the DBE Joint Check Agreement between the parties involved, including the conditions of the arrangement and expected use of the joint checks.

The approval to use joint checks and the use will be closely monitored by the Engineer. To receive DBE credit for performing a CUF with respect to obtaining materials and supplies, a DBE must "be responsible for negotiating price, determining quality and quantity, ordering the material and installing and paying for the material itself." The Contractor shall submit DBE Joint Check Request Form for the Engineer approval prior to using a joint check.

Material costs paid by the Contractor directly to the material supplier is not allowed. If proper procedures are not followed or the Engineer determines that the arrangement results in lack of independence for the DBE involved, no DBE credit will be given for the DBE's participation as it relates to the material cost.

Prompt Payment

Prompt payment to all subcontractors shall be in accordance with Section 1-08.1. Prompt Payment requirements apply to progress payments as well as return of retainage.

Reporting

The Contractor and all subcontractors/suppliers/service providers that utilize DBEs to perform work on the project, shall maintain appropriate records that will enable the Engineer to verify DBE participation throughout the life of the project.

Refer to Section 1-08.1 for additional reporting requirements associated with this Contract.

Decertification
When a DBE is "decertified" from the DBE program during the course of the Contract, the participation of that DBE shall continue to count as DBE participation as long as the subcontract with the DBE was executed prior to the decertification notice. The Contractor is obligated to substitute when a DBE does not have an executed subcontract agreement at the time of decertification.

Consequences of Non-Compliance
Each contract with a Contractor (and each subcontract the Contractor signs with a Subcontractor) must include the following assurance clause:

The Contractor, subrecipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;

(2) Assessing sanctions;

(3) Liquidated damages; and/or

(4) Disqualifying the Contractor from future bidding as non-responsible.

Payment
Compensation for all costs involved with complying with the conditions of this Specification and any other associated DBE requirements is included in payment for the associated Contract items of Work, except otherwise provided in the Specifications.

Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

(August 12, 2025 SkagitR)
Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

The following addresses and telephone numbers of utility companies known or suspected of having facilities within the project limits are supplied for the Contractor's convenience:

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Astound Broadband
Contact: Michael Robles
Phone: (360) 393-6969
Email: michael.robles@astound.com

BNSF Railroad
Contact: Kyle Leatham
Phone: (425) 210-8084
Email: kyle.leatham@bnsf.com

BP/Olympic Pipeline
Contact: Mark Skodje
Phone: (360) 206-4137
Email: mark.skodje@bp.com

Cascade Natural Gas
Contact: Addam Sad
Office Phone: (360) 336-3866
Cell Phone: (360) 391-6093
Email: addam.sad@cngc.com

Comcast/Xfinity
Contact: Joe Norris
Phone: (206) 735-5958
Email: joseph_norris@comcast.com

Lumen
Contact: Morgan Roehl
Phone: (206) 348-9025
Email: morgan.roehl1@lumen.com

Puget Sound Energy
Contact: Jane Major
Phone: (360) 791-2748
Email: jane.major@pse.com

Quest Local Network
Contact: Gary
Phone: (206) 473-0736

Alternate: Scott
Phone: (360) 441-2913

Samish Water District
Contact: Ken Vogel
Phone: (360) 603-1753
Email: vogelken@comcast.net

Skagit Public Utility District
Contact: Mike Larson
Phone: (360) 391-4918
Email: larson@skagitpud.org

Ziply Fiber
Contact: Logan Rypysc
Phone: (860) 977-3379

Email: logan.rypysc@atcotelecom.com

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1-07.18 Public Liability and Property Damage Insurance

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

1-07.18 Insurance
(January 4, 2024 APWA GSP)

1-07.18(1) General Requirements

A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.

B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.

C. If any insurance policy is written on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.

E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency

G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the

Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

I. Under no circumstances shall a wrap up policy be obtained, for either initiating or maintaining coverage, to satisfy insurance requirements for any policy required under this Section. A **"**wrap up policy**"** is defined as an insurance agreement or arrangement under which all the parties working on a specified or designated project are insured under one policy for liability arising out of that specified or designated project**.**

1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by subcontractors.

The Contractor shall ensure that all subcontractors of every tier add all entities listed in 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
3. Any other amendatory endorsements to show the coverage required herein.
4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Contractor's maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

$2,000,000	Each Occurrence
$3,000,000	General Aggregate
$3,000,000	Products & Completed Operations Aggregate
$2,000,000	Personal & Advertising Injury each offence
$2,000,000	Stop Gap / Employers' Liability each accident

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

$1,000,000 Combined single limit each accident

1-07.18(5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

1-07.18(5)K Professional Liability

(December 30, 2022 APWA GSP)

The Contractor and/or its subcontractor(s) and/or its design consultant providing construction management, value engineering, or any other design-related non-construction professional services shall provide evidence of Professional Liability insurance covering professional errors and omissions.

Such policy shall provide the following minimum limits:

$1,000,000 per claim and annual aggregate

If the scope of such design-related professional services includes work related to pollution conditions, the Professional Liability insurance shall include coverage for Environmental Professional Liability.

If insurance is on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract.

Public Convenience and Safety

Construction Under Traffic

Section 1-07.23(1) is supplemented with the following:

(October 3, 2022)
Public Notification

The Contractor shall furnish and install information signs that provide advance notification of a ramp closure, roadway closure, or both, a minimum of *** fourteen (14) *** working days prior to the closure. Sign locations, messages, letter sizes, and sign sizes are shown in the Plans.

The Contractor shall notify *** Skagit County ***, in writing, a minimum of *** ten (10) *** working days prior to each closure. The Contractor shall furnish copies of these notifications to the Engineer.

1-07.24 Rights of Way

(April 22, 2025 APWA GSP)

Delete this section and replace it with the following:

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

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

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

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

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

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

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters

(May 25, 2006 APWA GSP)

Add the following new section:

1-08.0(1) Preconstruction Conference

(July 8, 2024APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To review DBE Requirements, Training Plans, and Apprenticeship Plans, when applicable.
5. To establish normal working hours for the work;
6. To review safety standards and traffic control; and
7. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

Add the following new section:

1-08.0(2) Hours of Work

(December 8, 2014 APWA GSP)

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state

what hours are being requested, and why. Requests shall be submitted for review no later than 5 prior to the day(s) the Contractor is requesting to change the hours.

If the Contracting Agency approves such a deviation, such approval may be subject to certain other conditions, which will be detailed in writing. For example:

1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.
3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
4. If a 4-10 work schedule is requested and approved the non working day for the week will be charged as a working day.
5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll

1-08.1 Subcontracting

(December 30, 2022 APWA GSP, Option A)

Section 1-08.1 is supplemented with the following:

Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed. This certification shall also guarantee that these subcontract agreements include all the documents required by the Special Provision Federal Agency Inspection.

A subcontractor or lower tier subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

1. Request to Sublet Work (WSDOT Form 421-012), and

2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (WSDOT Form 420-004).

The Contractor shall submit to the Engineer a completed Monthly Retainage Report (WSDOT Form 272-065) within 15 calendar days after receipt of every monthly progress payment until every subcontractor and lower tier subcontractor's retainage has been released.

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Contracting Agency during the life of the contract and for a period of not less than three years after the date of acceptance of the contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that these records of all subcontractors and lower tier subcontractors shall be available and open to similar inspection or audit for the same time period.

1-08.1(8)B Clauses Required in Subcontracts of All Tiers
(November 25, 2024 APWA GSP)
Delete item 8 of the second paragraph of Section 1-08.1(8)B.

Progress Schedule

General Requirements

1-08.3(2)B Type B Progress Schedule
(January 4, 2024 APWA GSP)

Revise the first paragraph to read:

The Contractor shall submit a preliminary Type B Progress Schedule at or prior to the preconstruction conference. The preliminary Type B Progress Schedule shall comply with all of these requirements and the requirements of Section 1-08.3(2), except that it may be limited to only those activities occurring within the first 60-working days of the project.

Revise the first sentence of the second paragraph to read:
The Contractor shall submit three 11x17 hardcopies and one electronic pdf copy of a Type B Progress Schedule depicting the entire project no later than 21-calendar days after the preconstruction conference.

1-08.4 Prosecution of Work

Delete this section and replace it with the following:

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

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

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

1-08.5 Time for Completion

(November 25, 2024 APWA GSP, Option B)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the tenth calendar day after the Notice to Proceed date. If the Contractor starts work on the project at an earlier date, then contract time shall begin on the first working day when onsite work begins.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and all partial or whole days the Engineer declares as unworkable. The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day, then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
    a. Certified Payrolls (per Section 1-07.9(5)).
    b. Material Acceptance Certification Documents
    c. Monthly Reports in DMCS of the amounts paid including the final payment confirmation to all firms required by Section 1-08.1(7)A if applicable
    d. Final Contract Voucher Certification

e. Copies of the approved “Affidavit of Prevailing Wages Paid” for the Contractor and all subcontractors
f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
g. Property owner releases per Section 1-07.24

Section 1-08.5 is supplemented with the following:

(March 13, 1995)
This project shall be physically completed within *** sixty (60) *** working days.

Suspension of Work

Section 1-08.6 is supplemented with the following:

(February 6, 2023)
Contract time may be suspended for procurement of critical materials (Procurement Suspension). In order to receive a Procurement Suspension, the Contractor shall within 21 calendar days after execution by the Contracting Agency, place purchase orders for all materials deemed critical by the Contracting Agency for physical completion of the contract. The Contractor shall provide copies of purchase orders for the critical materials. Such purchase orders shall disclose the purchase order date and estimated delivery dates for such critical material.

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

*** Precast Reinforced Concrete Split Box Culvert ***

Charging of contract time will resume upon delivery of the critical materials to the Contractor or *** 120 *** calendar days after execution by the Contracting Agency, whichever occurs first.

1-08.9 Liquidated Damages

(March 3, 2021 APWA GSP, Option A)

Replace Section 1-08.9 with the following:

Time is of the essence of the Contract. Delays inconvenience the traveling public, obstruct traffic, interfere with and delay commerce, and increase risk to Highway users. Delays also cost tax payers undue sums of money, adding time needed for administration, engineering, inspection, and supervision.

Accordingly, the Contractor agrees:

1. To pay liquidated damages in the amount of *** $2,500.00 *** for each working day beyond the number of working days established for Physical Completion, and

2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

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

Liquidated damages will not be assessed for any days for which an extension of time is granted. No deduction or payment of liquidated damages will, in any degree, release the Contractor from further obligations and liabilities to complete the entire Contract.

Measurement and Payment

Weighing Equipment

1-09.2(1) General Requirements for Weighing Equipment

(November 25, 2024 APWA GSP, Option B)

Revise item 4 of the fifth paragraph to read:

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

1-09.2(5) Measurement

(December 30, 2022 APWA GSP)

Revise the first paragraph to read:

Scale Verification Checks – At the Engineer's discretion, the Engineer may perform verification checks on the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

1-09.6 Force Account

(December 30, 2022 APWA GSP)

Supplement this section with the following:

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

1-09.7 Mobilization

(December 30, 2022 APWA GSP)

Delete this Section and replace it with the following:

Mobilization consists of preconstruction expenses and the costs of preparatory Work and operations performed by the Contractor typically occurring before 10 percent of the total original amount of an individual Bid Schedule is earned from other Contract items on that Bid Schedule. Items which are not to be included in the item of Mobilization include but are not limited to:

1. Portions of the Work covered by the specific Contract item or incidental Work which is to be included in a Contract item or items.
2. Profit, interest on borrowed money, overhead, or management costs.
3. Costs incurred for mobilizing equipment for force account Work.

Based on the lump sum Contract price for “Mobilization”, partial payments will be made as follows:

1. When 5 percent of the total original Bid Schedule amount is earned from other Contract items on that original Bid Schedule, excluding amounts paid for materials on hand, 50 percent of the Bid Item for mobilization on that original Bid Schedule, 5 percent of the total of that original Bid Schedule, or 5 percent of the total original Contract amount, whichever is the least, will be paid.
2. When 10 percent of the total original Bid Schedule amount is earned from other Contract items on that original Bid Schedule, excluding amounts paid for materials on hand, 100 percent of the Bid Item for mobilization on that original Bid Schedule, 10 percent of the total of that original Bid Schedule, or 10 percent of the total original Contract amount, whichever is the least, will be paid.
3. When the Substantial Completion Date has been established for the project, payment of any remaining amount Bid for mobilization will be paid.

Nothing herein shall be construed to limit or preclude partial payments otherwise provided by the Contract.

1-09.9 Payments

(July 8, 2024 APWA GSP, Option A)

Supplement this section with the following:

Lump sum item breakdowns are not required when the bid price for the lump sum item is less than $20,000.

Disputes and Claims

1-09.11(3) Time Limitation and Jurisdiction

(December 30, 2022 APWA GSP)

Revise this section to read*:*

For the convenience of the parties to the Contract it is mutually agreed by the parties that all claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that all such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to all such claims or causes of action. It is further mutually agreed by the parties that when claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

Claims Resolution

1-09.13(3)A Arbitration General

(January 19, 2022 APWA GSP)

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

1-09.13(4) Venue for Litigation

(December 30, 2022 APWA GSP)

Revise this section to read:

Litigation shall be brought in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. It is

mutually agreed by the parties that when litigation occurs, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

Temporary Traffic Control

Traffic Control Management

Section 1-10.2 is supplemented with the following:

(November 2, 2022)
Work Zone Safety Contingency

Enhancements to improve the effectiveness of the accepted traffic control plans to increase the safety of the work zones shall be discussed on a weekly basis between the Contractor and the Contracting Agency. Enhancements shall be mutually agreed upon by the Contractor and Engineer prior to performing any Work to implement the enhancement.

Enhancements do not include the use of Uniformed Police Officers or WSP, address changes to the allowed work hour restrictions, or changes to the staging plans in the Contract (if applicable). If allowed by the Engineer, these items will be addressed in accordance with Section 1-04.4.

The Contractor shall be solely responsible for submitting any traffic control plan revision to implement the enhancement in accordance with Section 1-10.2(2).

General

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

(October 3, 2022)
The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
https://www.nwlett.edu

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778
https://www.esc.org

The American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, Virginia 22406-1022
Training Dept. Toll Free (877) 642-4637
Phone: (540) 368-1701
https://atssa.com/training

Integrity Safety

13912 NE 20th Ave.
Vancouver, WA 98686
(360) 574-6071
https://www.integritysafety.com

US Safety Alliance
(904) 705-5660
https://www.ussafetyalliance.com

K&D Services Inc.
2719 Rockefeller Ave.
Everett, WA 98201
(800) 343-4049
https://www.kndservices.net

Measurement

Reinstating Unit Items With Lump Sum Traffic Control

The first sentence of the first paragraph of Section 1-10.4(3) is revised to read:

(March 20, 2025)
The Bid Proposal may establish the project as lump sum, in accordance with Section 1-10.4(1) and also include one or more of the items included above in Section 1-10.4(2).

Payment

Lump Sum Bid for Project (No Unit Items)

In Section 1-10.5(1), the paragraph following the bid item “Project Temporary Traffic Control”, lump sum is revised to read:

(November 4, 2024)
The lump sum Contract payment shall be full compensation for all costs incurred by the Contractor in performing the Contract Work defined in Section 1-10 except for costs compensated by Bid Proposal items reinstated as described in Section 1-10.5(3).

Item Bids with Lump Sum for Incidentals

Section 1-10.5(2) is supplemented with the following:

(******)
“Construction Signs Class B”, per square foot.
The unit Contract price, when applied to the number of units measured for this item in accordance with Section 1-10.4(2), shall be full compensation for all costs incurred by the Contractor in performing the Work described in Section 1-10.3(3)A.

Division 2
Earthwork

Clearing, Grubbing, and Roadside Cleanup

(April 2025 NSD SP)

2-01.1 Description

This section is revised to read:

The Contractor shall clear within the Temporary Access Routes, as well as other clearing locations identified on the Plans. Vegetation shall be cleared as close to the groundline as practical, but no grubbing shall occur. This Work includes protecting from harm all trees, bushes, shrubs, or other objects selected to remain outside of identified clearing areas and earthwork areas.

"Clearing" means removing and disposing of all unwanted material from the surface, such as trees, brush, down timber, or other natural material; if cleared material is proposed for use as material in other portions of the Work, clearing also includes stockpiling at a location of the Contractor's choosing.

"Grubbing" means removing and disposing of all unwanted vegetative matter from underground, such as sod, stumps, roots, buried logs, or other debris.

"Roadside cleanup", whether inside or outside the staked area, means Work done to give the roadside an attractive, finished appearance.

"Usable Material" means all natural material produced by clearing or grubbing of native tree and shrub species.

"Debris" means all natural material produced by clearing or grubbing of any material containing non-native and/or invasive species.

2-01.2 Disposal of Usable Material and Debris

This section is revised to read:

The Contractor shall meet all requirements of state, county, and municipal regulations regarding health, safety, and public welfare in the disposal of all usable material and debris.

The Contractor shall stockpile cleared branches, stumps, limbs and other vegetative material from native species cleared during the project for future use as slash, wood chips, or disposed of as erosion control BMPs described below. Stockpiled material may be incorporated as slash or racking material in Instream Wood Placements.

Following completion of all earthwork and Instream Wood Placement, Usable Material and Debris shall be disposed of using one of the methods described below (in order of preference) and as directed by the Engineer. The cost of transporting material for

stockpiling (once or several times if stockpile needs relocating), transporting stockpiled material to a location for disposal, and disposal using one of the methods identified below shall be made incidental to the bid item Clearing. All Debris shall be disposed of utilizing Disposal Method Number 5. Disposal of all cleared material shall take place prior to the application of seed and mulch.

2-01.2(1) Disposal Method No. 1 – Incorporation into Wood Structures

Branches, limbs, tree tops, etc. from native tree species removed as part of the Work may be incorporated with instream wood placements as racking material or slash as directed by the Engineer. Incorporation of cleared material from native tree species with instream wood placements may occur during or after wood placements have been established.

2-01.2(2) Disposal Method No. 2 – Track-Walking

Track-walking for disposal of Usable Material shall be accomplished by first cutting limbs, branches, tree tops and unwanted boles into lengths no longer than 15-feet using hand tools or small equipment approved by the Engineer. Once cut to an acceptable length, the material shall be placed in an area identified by the Engineer, such that no material protrudes above the finished ground higher than 6-inches. Following placement, the Contractor shall incorporate the placed material into the ground by track-walking it (making several passes with tracked equipment over the placed material) into finished ground.

2-01.2(3) Disposal Method No. 3 – Lop and Scatter

To dispose of Usable Material by lopping and scattering, the Contractor shall cut limbs, branches, tree tops, and unwanted boles into lengths suitable for handling by hand. Cuts shall be made with hand tools (loppers, hand saw, etc.) or handheld power equipment (sawzall, chainsaw, etc.) approved by the Engineer. Once cut to an acceptable length the material shall be spread evenly by hand to a depth no greater than 6-inches. Areas where lop and scatter is an acceptable form of disposal include areas outside of the Ordinary High Water mark and within the limits of earthwork as well as other areas identified by the Engineer.

2-01.2(4) Disposal Method No. 4 – Chipping

The Contractor may also choose to chip Usable Material. Chipping shall be done by machines that can grind Usable Material into wood chips and chunks of varying sizes. If the contractor decides to chip Usable Material, wood chips shall be spread evenly to a maximum depth of 2-inches.

2-01.2(5) Disposal Method No. 5 – Off-site Disposal

The Contractor may also choose to haul all excess Usable Material off-site to a disposal location of the Contractor's choosing provided the site meets all applicable local, state, and federal regulations. All Debris shall be disposed of in this manner.

Construction Requirements

Section 2-01.3 is supplemented with the following:

(******)

Removal of any tree greater than 12-inches in diameter from any portion of the project site requires approval of the Engineer. The Contractor shall clearly flag for review all trees

greater than 12-inches in diameter which may require removal or trimming to complete the Work shown on the Plans; separate flagging colors shall be used for proposed removal and trimming. The Engineer will review the flagged trees and make a determination regarding the appropriateness of the flagged actions. No tree removal or trimming shall occur until the Engineer has given approval for said action. The Engineer may direct the Contractor to modify the Work to avoid damage to roots, particularly when excavation is to occur within or near the drip line of a tree. Such modifications will be minor in nature and will not constitute an appreciable change in the nature or intent of the Work.

Clearing

Item number 1 of Section 2-01.3(1) is revised to read:

(******)

8. Stake and flag all areas of clearing at least 3 business days prior to construction. The Contractor shall inform the Engineer when the flagging is installed. The Engineer will inspect proposed clearing areas.

9. Clearly flag or otherwise identify all trees greater than 12-inches in diameter at breast height (DBH) which and are proposed to be removed. Do not clear vegetation greater than 12-inches DBH without prior Engineer approval.

10. Clearly flag or otherwise identify all branches proposed to be trimmed to allow for equipment access or material transport. Neatly cut all limbs or branches approved for removal close to the tree trunk.

11. Use selective clearing methods to clear areas where invasive species, noxious weeds, or other unwanted vegetation exist, or where clearing is required to occur near vegetation to be preserved or salvaged. Selective clearing methods consist of lightweight hand or hand-held equipment to prevent damage to roots of existing vegetation, compaction of the soil, or spreading of seed or pollen from invasive species.

Payment

The first and second paragraphs of Section 2-01.5 are revised to read:

(******)

All costs associated with stockpiling and Disposal of Usable Material and haul and Disposal of Debris generated through clearing and grubbing shall be made incidental to “Clearing and Grubbing”.

Removal of Structures and Obstructions

(October 2021 TT SP)

2-02.1 Description

Section 2-02.1 is supplemented with the following:

(******)

Removal of Structures and Obstructions

The following items shall be removed and disposed of off the project site in accordance with the requirements of Section 2-02:

MUTCD regulatory and warning signs with posts (Estimated Quantity: 1)
Buried telecommunication cable (Estimated Quantity: 1)
Buried power cable (Estimated Quantity: 1)
Derelict Vehicle (Estimated Quantity: 1)

The Contractor shall remove, salvage, and stockpile traffic signs and posts as shown in the plans or as directed by the Engineer. All traffic signs shall remain the property of Skagit County.

2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

(******)

All removed traffic signs shall be salvaged and remain the property of Skagit County unless otherwise directed by the Engineer. These salvaged items shall be dismantled, hauled to a location in the Contractor's staging area which has been approved by the Engineer, and neatly stacked without damage. Once stacked in the staging area, all salvaged signage components shall be protected from damage until removed by Skagit County personnel.

The Contractor is responsible for the disposal of all removed material and debris.

2-02.5 Payment

Section 2-02.5 is supplemented as follows:

(******)

"Removal of Structures and Obstructions", per Lump Sum

The removal, disposal, and salvage item quantities included above are to be included in the lump sum bid price for "Removal of Structures and Obstructions." They are estimates only and are provided for the Contractor's convenience as a basis of the bid. The Contractor shall verify the listed quantities before bidding. The unit price bid for "Removal of Structures and Obstructions" shall include all work shown on the Drawings and/or specified in Section 2-02, whether listed above or not.

The unit contract price per lump sum will be full payment for all tools, equipment, labor, materials, haul, and incidentals required to complete this work as specified herein. Disposal of removed materials and debris will not be paid separately but shall be included in the work.

Roadway Excavation and Embankment

2-03.1 Description

Section 2-03.1 is supplemented as follows:

(******)

Sawcutting, where shown on the plans, shall be incorporated into this Project.

2-03.3 Construction Requirements

2-03.3(14) Embankment Construction

2-03.3(14)M Excavation of Channels and Ditches

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

(******)
Channel Excavation includes excavation of native material, grading, and compaction as necessary to form the channel bed to the lines and grades shown in the Plans. Excavation may be to final grade where no placement of streambed aggregate is required or to channel subgrade prior to the placement of Streambed Aggregate.

The Contractor shall perform all grading necessary to prepare the channel bed such that the finished channel and ELJs (if present) are constructed to the elevations and grades and specified aggregate thicknesses (if present) shown on the Plans. Excavation shall be performed using as steep a cut as practical to minimize disturbance to the channel banks outside of the limits of the proposed grading.

The Contractor may elect to excavate the channel all at once or in shorter sections. Regardless of the approach taken, the Contractor shall allow for inspection and approval of the prepared section of channel prior to rewatering or placing Streambed Aggregate. The prepared section of channel shall be dewatered to allow for inspection and verification by the Engineer that channel bed matches the lines and grades shown in the Plans.

2-03.3(14)M1 Construction Stakeout

Prior to conducting any earthwork in the channel footprint, the Contractor shall clearly stake the excavation limits, depths, and offsets of intermediate break lines at regular intervals to clearly define the lines and grades. In areas where placement of Streambed Aggregate is required, the Contractor may elect to use a single set of stakes for the channel subgrade and finished channel elevations, provided the information supplied on the stakes is sufficient to clearly differentiate between the subgrade and the finished elevation.

The Engineer will have 3 working days to review the staked limits and may make minor adjustments to the staking based on site conditions. The Contractor shall be responsible for developing stakeout points for the grading of the streambed foundation and finished channel grade; the Contractor shall be responsible for generating and staking out sufficient offset stakes necessary to allow for ready inspection of the Work. Digital data are available for the channel alignment, profile, and finished grade to aid in generation of stakeout points.

2-03.3(14)M2 Reuse of Excess Material

The Contractor may be able to reuse a portion of the excess channel material as fill or Streambed Aggregate for other portions of the Work, provided the excess material is determined by the Engineer via visual inspection to meet the applicable requirements for that Work. The Contractor shall be responsible for any costs associated with separating, stockpiling, hauling, and handling excavated native streambed aggregates for reuse.

2-03.3(20) Sawcutting

(October 2021 TT SP)

Section 2-03.3(20) is added to the Contract Special Provisions:

(******)

Make a vertical saw cut to the depth called out on the plans, between any existing pavement, sidewalk, curb, or gutter that is to remain and the portion to be removed. Pavement removal shall include a sawcut in such a fashion to form a neat break line with a clean vertical edge. Except where the existing roadway is to be cold planed, all transitions to existing asphalt or cement concrete roadways, cement concrete driveways, curb and gutter, and walkways shall be vertically sawcut.

The Contractor is responsible for protecting the pavement edge after sawcutting or planing. If the asphalt cracks near the sawcut, a second sawcut will be required at no additional compensation. The limits of the second sawcut will be established by the Engineer. The Contractor is hereby advised that the depths of the existing pavement are variable. It is estimated that existing asphalt is 6-inches thick where sawcutting is required.

The Contractor shall follow Ecology Stormwater Management Manual (2019) guidelines pertaining to sawcutting shown below. Any additional equipment, labor, or materials required to meet the requirements below shall be considered incidental to the contract.

1. Vacuum slurry and cuttings during cutting and surfacing operations.
2. Slurry and cuttings shall not remain on permanent concrete or asphalt pavement overnight.
3. Slurry and cuttings shall not drain to any natural or constructed drainage conveyance, including stormwater systems. Doing so may require temporarily blocking catch basins.
4. Dispose of collected slurry and cuttings in a manner that does not violate groundwater or surface water quality standards.
5. Do not allow process water generated during hydro-demolition, surface roughening, or similar operations to drain to any natural or constructed drainage conveyance, including stormwater systems. Dispose of process water in a manner that does not violate groundwater or surface water quality standards.
6. Handle and dispose of cleaning waste material and demolition debris in a manner that does not cause contamination of water. Dispose of sweeping material from a pick-up sweeper at an appropriate disposal site.
7. The Contractor shall continually monitor operations to determine whether slurry, cuttings, or process water could enter the waters of the State. If inspections show that a violation of water quality standards could occur, stop

operations and immediately implement preventive measures such as berms, barriers, secondary containment, and vacuum trucks. The Contractor shall satisfy themselves of the nature of the pavement cuts to be made, and no additional allowance will be allowed regardless of depth or materials encountered.

2-03.4 Measurement

Section 2-03.4 is supplemented as follows:

(******)

Sawcutting existing pavement will be measured per the inch-foot measured over each linear foot and depth for the locations shown on the plans. Field observations made by the Engineer indicate the existing pavement thickness to be approximately 3 inches. No additional compensation will be made if the pavement thickness varies from the estimated thickness.

2-03.5 Payment

Section 2-03.5 is supplemented as follows:

(******)

"Sawcutting," per linear Inch-Foot

The unit contract price per inch-foot will be full payment for all tools, equipment, labor, materials, haul, and incidentals required to complete this work as specified herein.

Vacant

(April 2025 NSD SP)

This section is revised to read:

2-08 Slope Stabilization Grading

2-08.1 Description

This Work includes excavation, filling, grading, and compaction as necessary to construct the streambanks adjacent to the new channel as shown in the Plans.

2-08.2 Materials

When fill is required for construction of the stabilized streambanks, native material excavated from within the channel and adjacent banks may be used provided it is free of refuse, organic matter, and other deleterious materials. The material used for fill shall generally be granular with individual particles less than three inches in diameter; clay shall not be used for slope stabilization fill.

2-08.3 Construction Requirements

2-08.3(1) General

Streambanks adjacent to the existing channel are generally very steep, and the purpose of this Work is to establish streambank slopes that are naturally stable based on estimated soil properties. The Contractor shall excavate or fill as necessary to conform to the lines, grades, and cross-sections shown on the Plans. When fill placement is necessary to construct stabilized streambanks, fill shall be compacted to be uniformly dense and unyielding as approved by the Engineer.

The Contractor shall first roughly grade the stabilized streambanks to within ±0.25 feet of the lines, grades, and cross-sections shown on the Plans. Once rough grading has been completed, the Engineer will inspect the rough grading to verify conformance with the Plans. Following approval of rough grading, the Contractor shall roughen the roughly graded slopes by track walking or creating contour furrows to increase infiltration, encourage sediment trapping, and interrupt flow paths as described in the Western Washington Stormwater Manual BMP C130.

Slope stabilization grading shall gradually transition from specified slopes to match existing slopes at the downstream limit of grading. Streambank slopes in this area shall be gradually blended to match existing slopes. Slope roughening in these areas shall be completed to the extent practicable; where track walking is not feasible due to steep slopes, the Contractor shall utilize contour furrows as directed by the Engineer.

2-08.3(2) Construction Stakeout

Prior to conducting any earthwork related to streambank slope stabilization, the Contractor shall clearly stake the grading limits, elevations, and any offsets required to clearly define the lines and grades of the finished streambank slopes.

The Engineer will review the staked limits and may make minor adjustments to the staking based on site conditions and ensure that the finished slopes of the stabilized streambanks blend well with the finished channel bed. Construction stakeout points for the stabilized streambank slopes have been generated and are provided in the Plans; the Contractor shall be responsible for generating and staking out sufficient offset stakes necessary to allow for ready inspection of the Work. Digital data are also available should the Contractor choose to generate additional stakeout points.

2-08.3(3) Disposal of Excess Material

Construction of stabilized streambank slopes will require more excavation than fill resulting in a net excess of material generated from grading associated with establishing stable streambank slopes. The Contractor is responsible for the disposal of all excess material generated from establishing stable streambank slopes.

The Contractor may elect to reuse a portion of the excess material for other portions of the Work required under the Contract provided the excess material is determined via visual inspection to meet the applicable requirements for that Work. Reuse of excess material may require temporary stockpiling, sorting, haul, and rehandling; should the Contractor elect to reuse excess material, they do so at their own choosing with no guarantee of approval or acceptance by the Engineer. Rejection of excess material or

requiring sorting prior to reuse shall not be grounds for a change of conditions; the Contractor shall be responsible for supplying all required materials to complete the Work regardless of the acceptance or rejection of any and all proposals by the Contractor to reuse excess material in any application of the Work.

2-08.4 Measurement

Slope stabilization excavation including haul and slope stabilization fill will be measured by the cubic yard. All excavated material will be measured in the position it occupied before the excavation was performed. All fill materials will be measured by comparing the original ground with finished grades and neat lines shown on the Plans. Quantities included on the Bid Form are based on available data. Should the Contractor elect to verify or update quantities, all such Work shall be performed at no additional cost to the Contracting Agency. Requests for modifications to quantities shall be based on survey data provided by the Contractor and verified by the Engineer; a record of load tickets of material transported or similar measures will not be considered valid survey data.

2-08.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"Slope Stabilization Excavation Incl. Haul", per cubic yard.

"Slope Stabilization Fill", per cubic yard.

The unit Contract price per cubic yard for "Slope Stabilization Excavation Incl. Haul" shall be full compensation for all costs incurred excavating, loading, placing, hauling, and off-site disposal.

The unit Contract price per cubic yard for "Slope Stabilization Fill" shall be full compensation for all costs associated with furnishing, placing, and compacting acceptable fill material as described in this special provision.

All costs associated with track walking to roughen the completed surface shall be made incidental to bid items included in the Contract.

Division 5
Surface Treatments and Pavements

5-04 Hot Mix Asphalt

(January 31, 2023 APWA GSP)

Delete Section 5-04, Hot Mix Asphalt, and replace it with the following:

5-04.1 Description

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

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

5-04.2 Materials

Materials shall meet the requirements of the following sections:

Asphalt Binder	9-02.1(4)
Cationic Emulsified Asphalt	9-02.1(6)
Anti-Stripping Additive	9-02.4
HMA Additive	9-02.5
Aggregates	9-03.8
Recycled Asphalt Pavement (RAP)	9-03.8(3)B, 9-03.21
Reclaimed Asphalt Shingles (RAS)	9-03.8(3)B, 9-03.21
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP.

If the Contractor wishes to utilize High RAP/Any RAS, the design must be listed on the WSDOT Qualified Products List (QPL).

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01. Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

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

If the Contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

5-04.2(1)A Vacant

5-04.2(2) Mix Design - Obtaining Project Approval

No paving shall begin prior to the approval of the mix design by the Engineer.

Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in the Contract documents.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

Nonstatistical Mix Design. Fifteen days prior to the first day of paving the Contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall:

- Be designed for 2.5 million equivalent single axle loads (ESALs).
- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324 or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Mix Design. Approval of a mix design for "Commercial Evaluation" will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (for commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of ESALs appropriate for the required use.

5-04.2(2)B Using Warm Mix Asphalt Processes

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

- Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.
- Before using additives, obtain the Engineer's approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Minimum Surface Temperature for Paving

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55°F	45°F
0.10 to .20	45°F	35°F
More than 0.20	35°F	35°F

5-04.3(2) Paving Under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed, and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

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

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper

and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.

2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.

3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.

4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field-testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).

5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:

    a. A mechanical sampling device attached to the HMA plant.

    b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The Contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained

prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

5-04.3(3)C Pavers

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

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

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless otherwise required by the Contract.

Where an MTD/V is required by the Contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard,

uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4) Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

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

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one-part water to one-part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A Crack Sealing

When the Proposal includes a pay item for crack sealing, seal cracks in accordance with Section 5-03.

5-04.3(4)B Vacant

5-04.3(4)C Pavement Repair

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

5-04.3(5) Producing/Stockpiling Aggregates and RAP

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

5-04.3(5)A Vacant

5-04.3(6) Mixing

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

5-04.3(7) Spreading and Finishing

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

HMA Class 1”		0.35 feet
HMA Class ¾” and HMA Class ½”		
	wearing course	0.30 feet
	other courses	0.35 feet
HMA Class ⅜”		0.15 feet

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The

intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA

For HMA accepted by nonstatistical evaluation, the aggregate properties of sand equivalent, uncompacted void content, and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the option of the Engineer.

5-04.3(9) HMA Mixture Acceptance

Acceptance of HMA shall be as provided under nonstatistical, or commercial evaluation.

Nonstatistical evaluation will be used for the acceptance of HMA unless Commercial Evaluation is specified.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Engineer.

The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the approval of the Engineer and may be made in accordance with this section.

HMA Tolerances and Adjustments

1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows:

   For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

   For Aggregates in the mixture:

   a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

Aggregate Percent Passing	Non-Statistical Evaluation	Commercial Evaluation

1", ¾", ½", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-6%	+/- 8%
No. 8 Sieve	+/- 6%	+/-8%
No. 200 sieve	+/- 2.0%	+/- 3.0%

b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.

2. Job Mix Formula Adjustments – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.

   a. **Aggregates** –2 percent for the aggregate passing the 1½″, 1″, ¾″, ½″, ⅜″, and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).

   b. **Asphalt Binder Content** – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent.

5-04.3(9)A Vacant

5-04.3(9)B Vacant

5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot shall be equal to one day's production or 800 tons, whichever is less except that the final sublot will be a minimum of 400 tons and may be increased to 1200 tons.

All of the test results obtained from the acceptance samples from a given lot shall be evaluated collectively. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request

after the Engineer is satisfied that material conforming to the Specifications can be produced.

Sampling and testing for evaluation shall be performed on the frequency of one sample per sublot.

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall be tested.

Sampling and testing HMA in a structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.

- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a CPF shall be performed.

5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing

Testing of HMA for compliance of V_a will at the option of the Contracting Agency. If tested, compliance of V_a will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a CPF using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	**Factor "f"**
All aggregate passing: 1½″, 1″, ¾″, ½″, ⅜″ and No.4 sieves	2

All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids (Va) (where applicable)	20

Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

5-04.3(9)C5 Vacant

5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the CPF.

5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests

The Contractor may request a sublot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency, V_a. The results of the retest will be used for the acceptance of the HMA in place of the original sublot sample test results. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of $500 per sample.

5-04.3 (9)D Mixture Acceptance – Commercial Evaluation

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the commercial tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the

existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the CPF.

5-04.3(10) HMA Compaction Acceptance

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a CPF of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or Roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item “Roadway Core”, the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at locations designated by the Engineer. If the Contract does not include the Bid item “Roadway Core”, the Contracting Agency will obtain the cores.

For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor’s request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling wheel rutting shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

Test Results

For a sublot that has been tested with a nuclear density gauge that did not meet the minimum of 92 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative density of the sublot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the sublot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

When cores are taken by the Contracting Agency at the request of the Contractor, they shall be requested by noon of the next workday after the test results for the sublot have been provided or made available to the Contractor. Core locations shall be outside of wheel paths and as determined by the Engineer. Traffic control shall be provided by the Contractor as requested by the Engineer. Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request for cores. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the cost for the coring will be deducted from any monies due or that may become due the Contractor under the Contract at the rate of $200 per core and the Contractor shall pay for the cost of the traffic control.

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

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking, or shoving occurs. Areas inaccessible to large compaction equipment shall be compacted by other mechanical means. Any HMA that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced with new hot mix that shall be immediately compacted to conform to the surrounding area.

The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor’s option, provided the specified densities are attained. Unless the Engineer has approved otherwise, rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F. Regardless of mix temperature, a roller shall not be operated in a mode that results in checking or cracking of the mat. Rollers shall only be operated in static mode on bridge decks.

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

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer’s discretion, the

Engineer may evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733. A $500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

5-04.3(10)D1 HMA Nonstatistical Compaction - Lots and Sublots

HMA compaction which is accepted by nonstatistical evaluation will be based on acceptance testing performed by the Contracting Agency dividing the project into compaction lots.

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot shall be equal to one day's production or 400 tons, whichever is less except that the final sublot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per sublot per WSDOT T 738.

The sublot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used to prelevel wheel ruts shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each sublot, with one test per sublot.

5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a sublot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The

maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

For compaction below the required 92%, a Non-Conforming Compaction Factor (NCCF) will be determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the product of CPF, the quantity of HMA in the compaction control lot in tons, and the unit Contract price per ton of mix.

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

Work that is defective or does not conform to Contract requirements shall be rejected. The Contractor may propose, in writing, alternatives to removal and replacement of rejected material. Acceptability of such alternative proposals will be determined at the sole discretion of the Engineer. HMA that has been rejected is subject to the requirements in Section 1-06.2(2) and this specification, and the Contractor shall submit a corrective action proposal to the Engineer for approval.

5-04.3(11)B Rejection by Contractor

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

5-04.3(11)C Rejection Without Testing (Mixture or Compaction)

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Material rejected before placement shall not be incorporated into the pavement. Any rejected section of Roadway shall be removed.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples will be obtained and tested. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

5-04.3(11)D Rejection - A Partial Sublot

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)E Rejection - An Entire Sublot

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this sublot will be obtained. These additional samples and the original sublot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)F Rejection - A Lot in Progress

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

1. When the CPF of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
3. When either the PF for any constituent or the CPF of a lot in progress is less than 0.75.

5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

An entire lot with a CPF of less than 0.75 will be rejected.

5-04.3(12) Joints

5-04.3(12)A HMA Joints

5-04.3(12)A1 Transverse Joints

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed, and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

5-04.3(12)A2 Longitudinal Joints

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the maximum aggregate size or more than ½ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

5-04.3(12)B Bridge Paving Joint Seals

Bridge Paving Joint Seals shall be in accordance with Section 5-03.

5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than ⅛ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than ¼ inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, the pavement surface shall be corrected by one of the following methods:

1. Removal of material from high places by grinding with an approved grinding machine, or

2. Removal and replacement of the wearing course of HMA, or

3. By other method approved by the Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of $500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving and Pre-Planing Briefing (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing Bituminous Pavement

The planing plan must be approved by the Engineer and a pre-planing meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planing submittals.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition, the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. Intersections:

    a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).

    b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.

    c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.

d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.

e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.

2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.

3. Permanent pavement marking must comply with Section 8-22.

5-04.3(14)B2 Submittals - Planing Plan and HMA Paving Plan

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic control plan must show where police officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.

2. A copy of each intersection's traffic control plan.

3. Haul routes from supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.

4. Names and locations of HMA supplier facilities to be used.

5. List of all equipment to be used for paving.

6. List of personnel and associated job classification assigned to each piece of paving equipment.

7. Description (geometric or narrative) of the scheduled sequence of planing and of paving and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.

8. Names, job titles, and contact information for field, office, and plant supervisory personnel.

9. A copy of the approved Mix Designs.

10. Tonnage of HMA to be placed each day.

11. Approximate times and days for starting and ending daily operations.

5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other Contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both the Paving and Planing:

   a. The actual times of starting and ending daily operations.

b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.

c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, public convenience and safety, and other Contractors who may operate in the Project limits.

d. Notifications required of Contractor activities and coordinating with other entities and the public as necessary.

e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and paving.

f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed.

g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, streetcar rail, and castings, before planing as per Section 5-04.3(14)B2.

h. Description of how flaggers will be coordinated with the planing, paving, and related operations.

i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.

j. Other items the Engineer deems necessary to address.

2. Paving – additional topics:

a. When to start applying tack and coordinating with paving.

b. Types of equipment and numbers of each type of equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type of equipment as it relates to meeting Specification requirements.

c. Number of JMFs to be placed, and if more than one JMF is used, how the Contractor will ensure different JMFs are distinguished, how pavers and how MTVs are distinguished, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.

d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and supplier shutdown of operations.

e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

5-04.3(16) HMA Road Approaches

Construct HMA approaches at the locations shown in the Plans or where staked by the Engineer, in accordance with Section 5-04.

5-04.4 Measurement

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Roadway cores will be measured per each for the number of cores taken.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Planing bituminous pavement will be measured by the square yard.

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"HMA Cl. ___ PG ___", per ton.

"HMA for Approach Cl. ___ PG ___", per ton.

"HMA for Preleveling Cl. ___ PG ___", per ton.

"HMA for Pavement Repair Cl. ___ PG ___", per ton.

"Commercial HMA", per ton.

The unit Contract price per ton for "HMA Cl. ___ PG ___", "HMA for Approach Cl. ___ PG ___", "HMA for Preleveling Cl. ___ PG ___", "HMA for Pavement Repair Cl. ___ PG ___", and "Commercial HMA" shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-

04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

"Pavement Repair Excavation Incl. Haul", per square yard.

The unit Contract price per square yard for "Pavement Repair Excavation Incl. Haul" shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4) with the exception, however, that all costs involved in the placement of HMA shall be included in the unit Contract price per ton for "HMA for Pavement Repair Cl. ___ PG ___", per ton.

"Asphalt for Prime Coat", per ton.

The unit Contract price per ton for "Asphalt for Prime Coat" shall be full payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).

"Prime Coat Agg.", per cubic yard, or per ton.

The unit Contract price per cubic yard or per ton for "Prime Coat Agg." shall be full pay for furnishing, loading, and hauling aggregate to the place of deposit and spreading the aggregate in the quantities required by the Engineer.

"Planing Bituminous Pavement", per square yard.

The unit Contract price per square yard for "Planing Bituminous Pavement" shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14).

"Job Mix Compliance Price Adjustment", by calculation.

"Job Mix Compliance Price Adjustment" will be calculated and paid for as described in Section 5-04.3(9)C6.

"Compaction Price Adjustment", by calculation.

"Compaction Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)D3.

"Roadway Core", per each.

The Contractor's costs for all Work associated with the coring (e.g., traffic control) shall be incidental and included in the unit Bid price per each.

"Cyclic Density Price Adjustment", by calculation.

"Cyclic Density Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)B.

Division 6
Structures

Piling

(April 2025 NSD SP)

6-05.1 Description

This section is revised to read:

This Work consists of furnishing all necessary labor, equipment, materials, and other incidentals required to install timber piles of the sizes and types shown on the Plans within Instream Wood Placement, slash wattles, and bank rootwads. This Work also includes cutting off timber pile tops as shown in the Plans or directed by the Engineer.

6-05.2 Materials

This section is deleted and replaced with the following:

(******)

6-05.2(1) Timber Piling

Section 9-10.1 shall be deleted and replaced by the following:

(******)

Timber piling shall be untreated and peeled (bark removed).

Timber piles shall meet the nominal pile diameter, within a tolerance of 1 inch, measured at DBH and have the following limiting diameters (excludes bark thickness):

Nominal Pile Dia. in inches	Min. Butt Dia. in inches	Max. Butt Dia. in inches	Min. Tip Dia. in inches
10	10	15	7
12	12	17	9
14	14	19	11
16	16	21	13
18	18	23	15
20	20	25	17
22	22	27	19

6-05.2(1)A Untreated Piling

Section 9-10.1(1) shall be deleted and replaced by the following:

(******)

Untreated timber piling shall be Douglas Fir and shall be peeled to remove the bark. Piling shall be cut from sound, live trees and shall contain no unsound knots. Sound knots will be permitted, provided the diameter of the knot does not exceed 4 inches, or

⅓ of the small diameter of the pile at the point where they occur, whichever is smaller. Any defect or combination of defects which will impair the strength of the pile more than the maximum allowable knot will not be permitted. Holes may be allowed less than ½ inch in average diameter and up to 1 inch deep, provided the sum of the average diameter of all holes in any square foot do not exceed 1 ½ inches. Splits and cracks shall be no longer than the pile's butt diameter.

Piling shall be cut above the butt swell and shall have a uniform taper from butt to tip. The pile shall be straight such that a tape stretched from pile butt to tip shall not deviate from the surface of the pile by more than 3 inches.

6-05.2(1)B Steel Pile Tips and Shoes

Section 9-10.4 shall be deleted and replaced by the following:

(******)
Steel pile tips and shoes shall be fabricated of cast steel conforming to ASTM A148 Grade 90-60 [620-415] or ASTM A27 Grade 65-35 [450-240] and be free from any obvious defects.

6-05.3 Construction Requirements

6-05.3(1) Piling Terms

This section is deleted and replaced with the following:

(******)
Pile Driving Refusal – Pile driving refusal is defined as 15 blows per inch for the last 4 inches of driving for impact hammers and less than 2 inches of progress per minute for two consecutive minutes with vibratory hammers.

Embedment – Embedment is the design depth below the reference elevation shown in the Plans. When the channel thalweg (the deepest point of the adjacent channel) is the reference elevation for embedment the Contractor shall be responsible for developing methods to quantify embedment relative to thalweg elevation.

6-05.3(2) Ordering Piling

This section is replaced with the following:

(******)
The Contractor is solely responsible for sourcing and ordering piling. The Contractor shall have spare piles on site to cover normal and expected pile damage or be able to mobilize replacement piles to the site within 48 hours.

6-05.3(7) Storage and Handling

6-05.3(7)A Timber Piles

This section is deleted and replaced with the following:

(******)

Timber piling shall be stacked closely and in a manner to prevent warping. The ground beneath and around stored piles shall be cleared of weeds, brush, and rubbish.

Piles shall be lifted and moved with equipment, tools, and lifting devices which do not crush, split, puncture, or damage the piles. The Engineer may reject piles damaged in handling. Damaged piles shall be replaced at the Contractor's expense.

6-05.3(8) Pile Tips and Shoes

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

(******)
The Contracting Agency prefers that timber piles be driven with squared or pointed ends. If the Contractor is unable to drive the pile to specified depth, they may add pile tips and shoes at their discretion, at no added cost to the owner. Pile tips and shoes shall be securely attached to the piles in accordance with the manufacturer's recommendations.

Pile tips or shoes shall be of a type denoted in the Qualified Products List.

6-05.3(9) Pile Driving Equipment

6-05.3(9)A Pile Driving Equipment Approval

Delete this section and replace it with the following:

(******)
Prior to driving any piles, the Contractor shall submit a Pile Driving Plan including Type 2 Working Drawings consisting of details of each proposed pile driving system including the Contractor's preferred and all alternate pile driving systems proposed for use should the preferred pile driving system prove ineffective. The Contractor is solely responsible for examining the site, geotechnical report, and determining one or more pile driving approaches which are suitable for use and capable of driving piles at the locations and to the depths shown on the Plans while meeting all requirements of the project permits. The Contractor shall identify designated backups for the primary pieces of pile driving equipment. Changes to the pile driving system after completion of the Working Drawing review require a revised Working Drawing Submittal.

Wave equation analysis is not required.

6-05.3(9)B Pile Driving Equipment Minimum Requirements

This section is deleted and replaced with the following:

(******)
The Contractor is solely responsible for providing a safe and effective pile driving system. Should the Contractor's proposed system prove ineffective, an alternative driving system shall be provided at no additional cost to the Contracting Agency. All pile driving systems shall be operated within safe working limits and in accordance with the manufacturer's operation guidelines.

An excavator-mounted vibratory hammer with side grip capabilities is recommended as part of the pile driving equipment. This piece of equipment is for setting up the piles in their correct positions and alignments and driving them to the depth at which they become freestanding. The side grip should be capable of driving piles to the batter specified on the Plans. It is recommended that the side grip be capable of being fitted with a pile driving cap on the underside of the main driving body in compliance with the manufacturer's recommendations. The pile driving cap should be capable of being held in line with the main body of the driver to maximize transfer of energy from the driver to the pile. The minimum internal diameter of the pile driving cap shall be large enough to fit the pile when trimmed or chamfered per 6-05.3(11)C.

The machine to which any piece of driving equipment is mounted shall meet or exceed all pile driver manufacturer minimum requirements. The machine and driver shall be in good working condition, free of mechanical impairments and leaks, with all external grease and oils removed to the maximum extent practicable; all hoses and connections shall be checked for tightness and leaks prior to initiation of driving.

The Contractor shall have all tools, parts, and labor necessary to keep equipment in good working condition throughout the project duration. The Contractor shall maintain sufficient fleet to be able to provide or substitute required equipment within 24 hours, if next-day repair is not possible.

Installation by vibratory plate, blasting, mudding, or jetting shall not be allowed.

6-05.3(11) Driving Piles

6-05.3(11)A Tolerances

Delete this section and replace it with the following:

(******)
The Contractor is responsible for centralization methods of all piling. The horizontal tolerance for each timber pile after driving through native soil shall be within one foot of the Plan location. Piles driven outside of one foot of the Plan location shall be marked and the Engineer shall be notified immediately to assess function and to determine if remaining piles within the structure require adjustment to allow placement of logs. Misaligned piles may be pushed or pulled laterally as directed by the Engineer to achieve the specified alignment. Piles shall be plumb, unless designated as batter piles, to within 5 percent of the length based on the total length of the pile unless approved by the Engineer. Batter piles shall be installed to within 5 percent of batter angle as specified in the plans, and as approved by the Engineer. The vertical tolerance for each timber pile after driving shall be within 6 inches of the minimum embedment depth specified on the Plans as determined from markings on the driven pile. Piles with greater variation, driven out of proper location, or driven below the designated top elevation shall be removed or cut off, as directed by the Engineer and replaced with new piles. All correction costs shall be paid by the Contractor.

Any pile heaved or displaced by the subsequent installation of adjacent piles shall be re-driven.

6-05.3(11)C Preparation for Driving

Delete this section and replace it with the following:

(******)
Timber piles for instream wood placement shall be cut square on the butt end on site prior to driving. If the pile butt is larger than internal diameter of the pile driving cap, side grip, or steel driving cap, the pile top shall be trimmed or chamfered to fit. Prior to driving, the Contractor shall clearly mark the pile in 1-foot increments, including marking the target embedded depth as measured from the tip end of the pile; marking shall occur after any trimming of the pile has occurred. Shortening of piles shall be minimized; piles shall be shortened a maximum of one foot during squaring, trimming, and/or chamfering.

6-05.3(11)D Achieving Minimum Tip Elevation and Bearing

Delete this section and replace it with the following:

(******)
Piles shall be driven with the tip (narrow end of pile) end down. Once pile driving has started, each pile shall be driven continuously until the required embedment shown in the Plans has been achieved. Stops during pile driving, except for mechanical breakdown, machine cooling, or unforeseen events, shall be minimized. Determination of ultimate bearing capacity for timber piles is not required for this Work.

The Contractor shall monitor the status and temperature of the driver throughout driving activities and shall adhere to manufacturer recommendations for maximum operating temperature. Cooling via direct immersion in surface or groundwater or pumping from a groundwater sump is not allowed. The driver may be cooled by air cooling or hosing down in an upland area where runoff does not enter surface waters, provided all applicable permit conditions are met. Regular maintenance of the pile driver during driving activities is required. The contractor shall conduct regular inspections of fittings, couplers, hoses, bolts, and other mechanical connections and implement corrective action immediately upon discovery of an issue.

The Contractor shall provide a pile driving system which will not result in damage to the pile or refusal before embedment is reached. The Contractor shall attain Engineer's approval prior to shifting pile locations. The Contractor shall use all normal means necessary to achieve the embedment depth specified. This may include penetrating through hard surface and subsurface layers.

Normal means refer to side grip vibratory driving, vibratory driving with the pile cap, vibratory hammer driving, impact hammer driving, augering, pre-boring, and spudding piles. Augering or pre-boring shall extend the full length of the pile, as needed. Excavating to remove shallow obstructions ≤ 8 feet deep is also considered normal means. Blasting or drilling through obstructions or bedrock are not considered normal means.

The unit Contract prices for driving piles shall cover all costs related to implementing the full suite of normal means for pile driving. After the pile is driven, the Contractor shall fill all open spaces between the pile and the soil caused by spudding or augering with native alluvium as approved by the Engineer. Spudded or augered piles shall meet the minimum pullout requirements specified by the Engineer. The Contracting Agency

will not pay any costs the Contractor incurs in redriving piles loosened as a result of spudding or augering.

Piles are anticipated to be installed through saturated granular deposits with gravels, cobbles, and boulders. Contractor shall attain Engineer's approval prior to shifting pile locations.

6-05.3(11)F Pile Damage

Delete the first paragraph of this section and replace it with the following:

(******)
Any pile damaged during driving, transport, handling, or instream wood placement shall be replaced by the Contractor, without compensation. Damage is defined as pile breakage, splitting that extends below the pile cutoff elevation, excessive crushing or cracking, or holes, dents, or gouges larger than the acceptable criteria of Section 6-05.2(1)A.

6-05.3(11)G Pile Cutoff

This first paragraph of section is deleted and replaced with the following:

(******)
Following installation of piles to the design embedment depth and after completion of instream wood placement, the pile tops shall be sawed as shown on the Plans. Material generated from pile cutoff shall be incorporated into the ELJ structures as racking or disposed of off-site by the Contractor, as directed by the Engineer.

6-05.3(12) Determination of Bearing Values

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

(******)
Bearing values do not apply for this project.

6-05.3(13) Treatment of Timber Pile Heads

Delete this section and replace it with the following:

(******)
No preservatives shall be applied to pile heads.

Add the following new section:

(******)
6-05.3(16) Submittals

The Contractor shall provide the following additional submittals.

6-05.3(16)A Notice of Intent to Start Driving

The Contractor shall provide written notification to the owner of the scheduled date for commencing of pile driving at the site at least seven days in advance of that date.

6-05.3(16)B Driving Records

The Contractor shall submit weekly driving records of each pile driven on a form approved by the Contracting Agency.

The record shall include the date and time of driving, pile location and number, pile dimensions, elevation of pile tip, structure base elevation, ground elevation, number of blows required for each foot of penetration 9if impact driving methods are used), or time to installed the pile to depth / rate of install (if vibratory methods are used), pile deviation, description of driving equipment used, and any unusual occurrences during pile driving.

Add the following new section:

(******)

6-05.3(17) Pile Refusal Contingency

The Contractor is solely responsible for providing an effective pile driving system. If piles are not achieving the required embedment, the Contractor shall provide an alternate driving system at no additional expense to the Contracting Agency. The pile refusal contingency plan may be implemented at the Engineer's discretion in situations where unexpected, localized, subsurface obstacles are encountered.

A. Troubleshooting problem piles

When a pile strikes a subsurface obstacle or the Contractor has employed all normal means of driving and pile refusal occurs prior to achieving the embedment depth indicated on the Plans, the Engineer shall be consulted, and the pile may be repositioned based on the Engineer's recommendations.

If three driving attempts per pile do not result in achievement of the design embedment, the Engineer will direct the Contractor to:

1. Provide an alternate pile driving system that is effective.

2. Continue installing the other piles in the structure with the goal of achieving an overall factor of safety (FOS) greater than 1.5 for sliding and buoyancy. This option may apply when the obstacle appears localized to the pile site, such as a buried boulder or piece of wood.

3. Implement other measures for increasing factor of safety including but not limited to applying rock collar ballast directly to the structure.

4. Abandon the structure location or relocate the structure. This option may apply when the obstacle appears localized to the instream wood placement site, such as a buried logjam or a bedrock knob.

B. Calculating structure factor of safety

If all the piles in a structure are installed and driven to refusal, but one or more of the piles does not meet the embedment shown on the Plans, the Engineer shall calculate the average embedment depth for the structure. (Contingency piles are not included in the average.) Based on the average embedment depth, the Engineer shall either accept the piles as installed or prescribe remedial actions to achieve an acceptable factor of safety (FOS). Remedial actions may include removing and relocating piles with poor embedment or installing contingency piles (up to 2 per structure) as directed by the Engineer. Contingency piles shall be installed to the minimum depth shown on the Plans.

If after remedial actions the structure meets the minimum FOS and the Engineer accepts the piles as installed, no further pile driving actions or modifications are required, and the Contractor shall complete construction of the structure as shown in the Plans. If additional remedial actions are still required following contingency pile installation the Engineer may direct the Contractor to implement additional stabilization measures.

C. Structure location abandonment and relocation

If the Engineer directs the Contractor to abandon or relocate the structure, sound piles shall be removed and used elsewhere as directed by the Engineer. If piles cannot be removed, piles shall be cut as near the ground surface as possible. Site conditions shall be returned to pre-construction conditions and site isolation removed.

In the case of structure abandonment, payment for pile driving effort shall be calculated based upon the unit cost breakdown for instream wood placement.

6-05.4 Measurement

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

(******)
Measurement for driving timber piles shall not apply.

6-05.5 Payment

Delete this section and replace it with the following:

(******)
Payment for pile driving is included with the payment of each Instream Wood Placement requiring timber piles (Section 8-27). All costs in connection with trimming and field fitting, spudding, installing steel tips, bands and shoes, all costs for any maintenance, labor, and installation of timber piles exhausting all “normal means”, as well as any water quality management necessary to install the piles is considered incidental to installation of the Instream Wood Placement.

Work performed to install additional piles following exhaustion of all normal means of pile driving or implementing additional stabilization measures shall be paid for in accordance with Section 1-04.4.

Buried Structures

(October 2021 TT SP)

6-20.1 Description

Section 6-20.1 is supplemented with the following:

(******)

Temporary Dewatering System

This Work consists of designing, installing, operating, maintaining, monitoring, decommissioning, and removing temporary dewatering systems and disposing of water produced by the temporary dewatering system for the purpose of lowering the groundwater elevation(s) and pressures within and beneath the culvert to facilitate the installation of a culvert replacement in accordance with the details shown in the Plans and these Special Provisions. This Work also includes design, installation, maintenance, monitoring, decommissioning, and removing any temporary dewatering systems necessary to allow for completion and inspection of all channel work including streambed foundation preparation, placement of Streambed Mix, and construction of instream wood placements.

6-20.2 Materials

Section 6-20.2 is supplemented with the following:

(******)

The Contractor shall employ materials and equipment that are proven as suitable for operation of construction dewatering systems.

6-20.3(17) Temporary Dewatering System

Section 6-20.3(11) is added to the Contract Special Provisions:

(******)

Temporary Dewatering System Performance Tolerances - Interference

Temporary dewatering systems shall be constructed so that the system does not interfere with the installation or construction of the permanent culvert replacement elements or appurtenances.

Groundwater Lowering

Groundwater elevations shall be sufficiently lowered in advance of the excavation such that no free water is present within the excavation area during the removal and replacement of the culvert

Groundwater Pressures

The Contractor shall control groundwater pressures beneath the excavations so as to prevent uplift, heave, blowout, softening of the bottom and slopes of excavations or formation of "quick" conditions or "boils" during excavation.

The Contractor shall keep all excavations free from groundwater and surface water and in a hydrostatically controlled condition during construction, including depressurization of underlying aquifers that could adversely impact the stability or structural integrity of soils within or beneath the excavation.

Submittals

At least thirty (30) days prior to the start of temporary dewatering system construction and in accordance with Section 1-05.3, the Contractor shall submit a Type 2 Working Drawings for the temporary dewatering system to the Engineer for review and comment. At a minimum, this submittal shall include the following:

Contractor Experience Requirements

Submit a project reference list to the Engineer verifying the successful completion of dewatering systems installed and operated by the Contractor of at least three separate tunnel, culvert/utility, bridge, retaining wall, or deep excavation projects of similar scope and scale within the last three (3) years. A brief description of each project and the date of completion as well as the Owner's contact person's name, current phone number, and email address, shall be included for each project listed.

Submit a list identifying the on-site supervisors assigned to the project. The list shall contain a detailed summary of each individual's experience in temporary dewatering system installation.

Working Drawings and Design Calculations

Temporary dewatering system working drawings and supporting design calculations shall be submitted to the Engineer in accordance with Section 1-05.3. The submittal shall include detailed layout, design calculations and all details, dimensions, quantities, and cross-sections necessary to construct the temporary dewatering system. The calculations shall include a detailed explanation of any symbols and computer programs used in the design of the temporary dewatering systems. All computer output submitted shall be accompanied by supporting hand calculations detailing the calculation process. Temporary dewatering systems that do not include sufficient or adequately designed installations to achieve the required dewatering of the site in advance of the excavation will not be approved.

Temporary Dewatering System Installation Plan

In preparing the temporary dewatering system installation plan, the Contractor shall reference the available subsurface data provided in the Contract test hole boring logs and the Summary of Geotechnical Conditions provided in the Appendix to the Special Provisions. This installation plan shall provide at least the following information:

1. An overall sequencing plan and construction timeline for the temporary dewatering system, excavation, and construction operation associated with the culvert removal and replacement.

2. Provide a description and capacities of the proposed equipment. The narrative shall describe why the equipment was selected and describe equipment suitability to the anticipated site and subsurface conditions.

3. Details of temporary dewatering system installation methods, including proposed drilling/excavation methods, methods for cleanout and development of the temporary dewatering systems, and a disposal plan for excavated material and drilling debris (if applicable). This shall include a review of method suitability to the anticipated site and subsurface conditions.

4. Details of the method(s) to be used to monitor the effectiveness and operation of the temporary dewatering system.

5. Details of the method(s) to be used to dispose of the water produced by the dewatering system and the method(s) to monitor and (if necessary) treat water quality prior to discharge.

6. Details of plans to address emergency or failure situations which could reasonably be anticipated to occur in the performance of this Work.

The use of the available data and information in no way relieves the Contractor from its sole responsibility for the proper detail design, installation, operation, maintenance, and failure of any component of the temporary dewatering systems for the duration of this Contract.

All temporary dewatering systems and components in the Plans shall be considered an example of one acceptable approach for dewatering. The inclusion of dewatering systems or components in the Plans does not relieve the Contractor from the responsibility of designing a system specific to this project and the site conditions at the time of construction.

Meetings

The Engineer will evaluate the temporary dewatering system installation plan for conformance with the Plans and Special Provisions. At the option of the Contracting Agency, a temporary dewatering system installation plan submittal meeting may be scheduled following a review of the Contractor's initial submittal of the plan. Those attending the temporary dewatering system installation plan submittal meeting, if held, shall include the following:

1. The superintendent, on-site supervisors, and other Contractor personnel (representing the Contractor) are involved in the preparation of the temporary dewatering system installation plan or the culvert repair and replacement work plan.

2. The Project Engineer, and Contracting Agency personnel (representing the Contracting Agency) involved with the structural, geotechnical, and construction review of the temporary dewatering system installation plan or the culvert repair and replacement plan.

Installation

Temporary dewatering system installations shall not be left open overnight unless cased to full depth. An open temporary dewatering system excavation is defined as a temporary dewatering system excavation that has not been completed or temporarily backfilled with a material approved by the Engineer.

Operation

The Contractor shall operate the temporary dewatering system such that the groundwater elevation is lowered in advance of the Work below the deepest point of the excavation so no free water is present within the excavation area during the culvert replacement work. Additionally, the temporary dewatering system shall be operated such that work related to channel grading, instream wood placement, and placement of streambed mix can be readily completed and visually inspected.

The Contractor shall ensure continuous, successful operation of the temporary dewatering system. The Contractor shall provide backup systems for all ordinary emergencies, including power outage and flooding, and shall have available at all times competent workers for the continuous and successful operation of the temporary dewatering system.

The Contractor shall bear all costs associated with repairing, replacing, or delays caused by damages to the temporary dewatering system and its components.

The Contractor shall decommission all temporary dewatering system components. In accordance with Washington State Department of Ecology guidelines.

6-20.5 Payment

Section 6-20.5 is supplemented as follows:

(******)

"Temporary Dewatering System", per Lump Sum

The Contract lump sum price for "Temporary Dewatering System" shall be full pay for all costs for performing the Work as specified, including developing and implementing the plan, as well as discharge disposal in compliance with all applicable water quality standards, and all additional pumping, testing, and installations necessary to meet the performance requirements of the temporary dewatering system

(******)

Add the following new section:

6-23 Timber Handrail

6-23.1 Description

This work consists of constructing timber handrails that meet the requirements of the Plans, these Specifications, and the Engineer.

6-23.2 Materials

All timber materials used in the construction of timber handrails shall meet the requirements of the following sections:

Structural Steel and Related Materials	9-06
Timber and Lumber	9-09

All fasteners, connections and related materials required to construct the timber handrail shall comply with the materials and dimensions shown on the Plans.

Concrete for timber handrail post foundations shall be plain concrete with a minimum compressive strength of 3,000 pounds per square inch when fully cured; commercial grade 'ready-mix' type concrete is acceptable for this use.

6-23.3 Construction Requirements

Timber handrails shall comply with the dimensions, materials, and construction requirements shown on the Plans. Posts for timber handrail shall be set vertically in the ground with no detectable deviation allowed. The Contractor shall set all posts for timber handrails and allow concrete to cure for a minimum of 24-hours prior to installing rails.

The tops of posts shall be cut in such a way that prevents water from pooling on the top of the post; alternatively, the Contractor may elect to install wooden post top covers with an appearance matching that of the posts themselves. All post tops shall be treated consistently and shall appear uniform. Any cuts made to post tops shall have smooth planes and shall not result in cuts, knicks, or a jagged appearance.

6-23.3(1) Alternative Handrail Designs

The Contractor may elect to design and install an alternate Timber Handrail or replace-in-kind any existing timber handrails if the Plans call for installation of Timber Handrail at a location where timber handrail is already installed. The Contractor shall submit Type 2 working drawings of any alternative timber handrail designs for review and shall not commence construction until they have been approved by the Engineer.

Alternative timber handrail designs shall be compliant with applicable ADA and OSHA regulations unless the alternative design is a replacement of in-kind timber handrail.

6-23.4 Measurement

Timber handrail will be measured by the linear foot.

6-23.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"Timber handrail", per linear foot.

Division 8
Miscellaneous Construction

Roadside Restoration

8-02.3 Construction Requirements

(April 2025 NSD SP)

8-02.3(1) Responsibility During Construction

Supplement this section with the following:

(******)

The Contractor shall exercise care when installing plant material adjacent to waterbody edges to minimize disturbance of the bank and prevent sediment or other pollutant discharges from entering the waterbody. No planting shall occur within the actively flowing channel.

The Contractor shall keep the premises clean, free of excess soils and other materials, including refuse and debris, resulting from work. The Contractor shall remove surplus soils, materials, and debris from the construction site and shall leave the project in a clean condition at the conclusion of the work. The Contractor shall notify the Engineer to request a walkthrough to complete a punch list of final items to be completed. Contractor shall not fully demobilize from the premises until all final punch list items are completed and punch list activities have been finished and approved by the Engineer. Contractor may demobilize all stream construction material, equipment, and machinery upon completion of the stream work prior to planting operations.

8-02.3(7) Layout of Planting, Lawn and Seeding Areas

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

(******)

The Contractor shall notify the Engineer three (3) working days prior to scheduled planting for approval of a sample plant layout of each planting area type indicated in the Plans prior to site-wide layout and/or installation.

Planting Types:
- Slope Planting
- Terrace Planting

8-02.3(8) Planting

8-02.3(8)A Dates and Conditions for Planting

Supplement this section with the following:

(******)

Installation of plant material may occur prior to October 1, as approved by the Contracting Agency.

The Contractor shall protect plant materials from damage due to construction operations, adjacent land use, or trespassers. Plant material placed within the site in the proposed planting locations shall not remain for more than four hours prior to being installed in the ground, unless otherwise approved by the Contracting Agency. The Contractor shall treat, repair, or replace damaged plant materials as directed by the Contracting Agency.

8-02.3(9) Seeding, Fertilizing, and Mulching

Section 8-02.3(9) is supplemented with the following:

(******)

4. Seed of the following mix, rate, and analysis shall be applied at the rates shown below upon all areas requiring permanent seeding within the project limits:

Seed by Common Name and (Botanical name)	Pounds Pure Live Seed (PLS) Per Acre
Redtop or Oregon bentgrass (Agrostis alba or Agrostis oregonensis)	24
Red fescue (Festuca rubra)	84
White dutch clover (Trifolium repens)	12
Total	120

The seed shall be certified in accordance with WAC 16-302 and meet the following requirements:

Prohibited Weed	0% max.
Noxious Weed	0% max.
Other Weed	0.20% max.
Other Crop	0.40% max.

8-02.4 Measurement

Supplement this section with the following:

(******)

Wood Chip Mulch shall be measured by the cubic yard.

8-02.5 Payment

Supplement this section with the following:

(******)

"Wood Chip Mulch", per Cubic Yard.

The unit price per acre for "Wood Chip Mulch" shall constitute full payment for furnishing, hauling, and placement of the material in locations shown on the Plans and approved by Engineer.

Guardrail

Construction Requirements

Section 8-11.3 is supplemented with the following:

(August 6, 2018)
Box Culvert Guardrail Steel Post

The Contractor shall remove surfacing materials from the top of the box culvert and shall determine the length of the posts. The Engineer will verify the dimensions before the posts may be fabricated.

All surfacing material must be removed from the box culverts in an area extensive enough to allow installation of the baseplate. Before the grout that conforms to Section 9-20.3(2) is placed, the concrete surface shall be thoroughly cleaned of all dirt, oil and debris.

The posts shall be installed to the box culvert in accordance with Standard Plan C-20.41.

After the posts are installed on the box culverts, the excavated areas shall be backfilled and compacted in 6-inch lifts. Compaction shall be accomplished with three passes with a mechanical tamper.

Measurement

Section 8-11.4 is supplemented with the following:

(October 3, 2022)
Box culvert guardrail steel posts type 31 will be measured per each, for each post installed.

Payment

Section 8-11.5 is supplemented with the following:

(October 3, 2022)
"Box Culvert Guardrail Steel Post Type 31", per each.

The unit contract price per each for "Box Culvert Guardrail Steel Post Type 31" shall be full pay for completing the installation of the posts, including obtaining field measurements, excavation, furnishing, placing and compacting the backfill material, and when required, repairing surfacing materials. Beam guardrail will be paid for in accordance with Section 8-11.5.

"Additional Box Culvert Guardrail Steel Post Assemblies", lump sum.

The lump sum contract price for "Additional Box Culvert Guardrail Steel Post Assemblies" shall be full pay to complete the work as specified.

Vacant

(April 2025 NSD SP)

Section 8-27 is revised to read:

8-27 Instream Wood Placement

8-27.1 Description

Work under this item shall consist of furnishing all material, labor, tools, and equipment necessary to install instream wood in accordance with the Plans, and these Special Provisions. Instream wood locations for log triangles shall be staked by the Contractor; however, final placement shall be verified and may be adjusted by the Engineer; channel rootwads, bank rootwads, and slash wattles will be staked by the Engineer. Logs shall be arranged, placed, and/or buried as indicated in the Plans. The Contractor shall anticipate that because of the irregularities of natural logs, adjustments to structure and individual log placements will be needed. These adjustments and modifications are expected, and additional payment will not be made.

Instream Wood refers to structures created primarily from wood and other woody materials which are constructed within and adjacent to the channel for the purposes of increasing aquatic habitat quality and providing stability for the channel and adjacent banks. For this project "log triangle(s)" or "log triangle units", "slash wattle(s)", "bank rootwad(s)", and "channel rootwad(s)" are all considered to be Instream Wood.

8-27.2 Materials

The Contractor shall furnish and deliver all logs (including timber piles), woody material, Habitat Boulders, and miscellaneous hardware required on the Plans. All logs shall be clearly marked in a manner which allows for ready determination of log type. Log delivery shall be coordinated with the Engineer to allow for inspection and approval of all woody material. The Contracting Agency reserves the right to reject and require replacement of woody material which does not meet the requirements of these Special Provisions.

8-27.2(1) Logs for Instream Wood

All logs for Instream Wood placement with or without rootwads shall come from Douglas fir, Grand fir or Western Red-Cedar which have been harvested within the past 24 months. Logs with rootwads shall have a diameter as shown on the Plans, measured at diameter-at-breast height (DBH), and defined as 4.5 feet above ground when the tree was standing. Logs without rootwads shall have a diameter as shown on the Plans and measured at the diameter of the largest cut end. Diameter measurements shall not include bark. All woody material shall be free of disease, insect infestation, and rot. Logs shall be of sound quality and free of cracks, checks, splits, rot, unsound knots, decay, or

other defects that may materially impair the strength or durability of the log as determined by the Engineer. Logs shall be No. 4 sawmill grade or better in accordance with the Official Rules of the Pacific Rim Log Scaling and Grading Bureau, Inc, Lacey WA. Certification of log grades will not be required but may be done if poor quality logs are encountered. Split trunks are not allowed, any longitudinal cracks in log boles shall not exceed 18 inches in length. Waterlogged logs will not be accepted. All logs shall generally be straight and free of obvious bends, sweeps or curves; logs may have a maximum curvature of up to 0.2 feet per ten feet of length measured as the departure from the prevailing longitudinal axis of bole to the actual centerline of the bole.

Rootwads shall have a diameter that is at least three times the DBH measured from the outer tips of the primary root system, determined as measuring from tip-to-tip through the centerline of the bole from roots which are large enough to support the weight of the log while resting on the ground. The length for logs with rootwads shall be measured from the cut end to the point where the primary root system stops.



Figure 1. Example of where to measure rootwad diameter.

Logs used as racking material shall be individual logs with or without rootwads, meeting the length and diameter requirements described in this section. Racking logs shall have a diameter between 4 – 10 inches and a length of 10 – 30 feet. The Contractor shall supply racking material with varying diameters and lengths (except those pieces to be used for slash wattles). The Contractor shall ensure that racking material diameter varies such that at least 10 percent and no more than 50 percent of the total number of racking pieces falls within the following categories:

- 4 – 6 inches
- 6 – 8 inches
- 8 – 10 inches

Similarly, the length of racking material pieces shall vary such that a minimum of 10 percent and not more than 50 percent of the total number of racking pieces (excluding those used for slash wattles) falls within the following categories:

10 – 20 feet
20– 25 feet
25– 30 feet

Logs used as racking for slash wattle construction shall have 40-60% of pieces in the 4-to-6-inch diameter range and the remainder of pieces in the 6-to-8-inch diameter range; racking logs used for slash wattle construction shall be 20 feet long (±1 foot).

All logs furnished by the Contractor shall be clearly marked to identify the type and length of log in a minimum of two separate locations.

The Contracting Agency will inspect all imported logs for quality. An identifying mark will be applied to all approved logs. When importing logs to the project site, the Contractor shall separately stockpile logs which have not been approved from those that have been approved. All materials that are rejected by the Contracting Agency shall be replaced by the Contractor at no additional cost to the Contracting Agency.

A summary of woody material to be provided, including log types, characteristics, and quantities is included in the table below; note that no additional materials are included in the table as contingency.

Log Type	Diameter/DBH (inches)	Length (ft)	Rootwad (Y/N)	Quantity
RD-35	18	35	Y	29 EA
RD-25	18	25	Y	9 EA
RD-20	18	20	Y	10 EA
PE-25 (pile)	14	25	Y	16 EA
PF-20 (pile)	12	20	N	20 EA
PG-15 (pile)	10	15	N	92 EA
Racking	4-10	10 – 30	Y/N	300 EA
Slash[1]	1 - 3	3 Min.	N	375 CY

[1]Slash shall be mixed in with Streambed Mix such that it comprises 5-10% by volume of Streambed Mix. The quantity included in the table includes approximately 145 cubic yards of additional slash material for use within wood structures as directed by the Engineer.

8-27.2(2) Slash Material

Slash shall be comprised of tree tops, limbs, branches, and other woody debris with a diameter of 1-3 inches and length of at least 2-5 feet. Slash material shall be a mix of acceptable material and shall be compressed such that one cubic yard of slash shall weighs approximately 500 – 600 pounds when delivered.

8-27.2(3) Boulders for Rock Collars

When rock collars are required as ballast for log triangles, boulders used to construct rock collars shall be Type Four Streambed Boulders meeting the requirements of Section 9-03.11(5). Additionally, boulders shall have a weight between 2,500 and 4,000 pounds

each. The weight of each boulder shall be clearly marked on each boulder proposed for use. Boulders shall be free of cracks and obvious defects. Total weight of any fully assembled rock collar shall be a minimum of 6,000 pounds.

8-27.2(4) Miscellaneous Instream Wood Placement Materials

All chain used for constructing rock collars shall match the type, grade, and working load specified in the Plans; the Contractor may elect to utilize long link chain to more readily accommodate any necessary field adjustments. Miscellaneous chain hardware (chain binders, shackles, and quick links) shall match the chain grade and diameter they will be used to secure; all chain used for Instream Wood placement and assembly shall be stainless steel chain. Miscellaneous chain hardware shall be galvanized; when shackles are required, screw pin type shackles shall be used and the threads shall be secured with an epoxy which is non-toxic to aquatic life. A completed cross-chain lashing generally requires a continuous chain length approximately 20 times the average diameter of the logs being connected.

Eye bolts used for rock collar construction shall be 1-inch diameter by 6-inch-long shank, forged shoulder galvanized eyebolt with minimum working load limit for in-line loading equal to at least 1.5 times the working load limit of the chain that is compatible with Contractor-selected hardware (chain, shackles, etc.).

Epoxy used for securing shoulder eye bolts shall be Type IV and meet the requirements of Section 9-26.

8-27.3 Construction Requirements

At all times when logs are being handled, loaded, unloaded, and placed, the Contractor shall exercise care to minimize damage to logs and rootwads. All logs with rootwads shall be handled by grasping the bole of the log; transporting or lifting logs with rootwads by grabbing the rootwad with an excavator bucket or similar equipment can damage rootwads and shall not be allowed. A log loader with an articulating grapple hook or excavator bucket with an articulating bucket is highly recommended but not required for handling and placing logs.

The Contractor shall place specified materials in accordance with design specifications for each Instream Wood placement. This includes placement of driven piles, logs, rock collars, racking material and slash, as well as mechanical connections as shown on the Plans and described in these Special Provisions. Placing woody material as shown on the Plans requires careful manipulation of material. While possible to install Instream Wood using tracked excavators, specialized equipment and/or adaptors such as log loaders, grapples, or articulating buckets and heads can ease constructability. The Contractor is encouraged to carefully examine the Plans and utilize equipment best suited for construction. Difficult construction conditions shall not be grounds for additional compensation as part of this Contract.

The area available at each Instream Wood placement location for heavy equipment is limited and the Contractor shall consider this when determining appropriate equipment to perform the work.

The Contractor may clear the adjacent area of vegetation as approved by the Contracting Officer. The Contractor shall make every effort to minimize vegetation disturbance and any material cleared as part of construction process shall be placed in front or within the

structure as racking material or slash. No Work below the Ordinary High Water Line shall occur until the Work area has been isolated. The Contractor shall coordinate with the Contracting Agency regarding anticipated scheduling of Instream Wood placement with updates to the anticipated schedule provided at least weekly.

Instream wood placement requires pile installation in accordance with these Special Provisions. The Contractor may elect to install Instream Wood in any sequence provided the arrangement of the finished structure matches that shown on the Plans and that piles are installed at appropriate locations and depths.

The Contractor shall perform any excavation necessary for Instream Wood placement as part of the Work. Excavated material shall temporarily be staged adjacent to the Work area. Contractor shall place all logs, racking material, slash, and mechanical connections as shown in the Plans. Excavated material shall be backfilled following placement of all logs, racking material, and slash (as directed by the Engineer). Backfilled material shall be placed in lifts of not more than 18 inches and compacted with the bucket of an excavator or similar means.

The Engineer may direct the Contractor to incorporate available slash material supplied by the Contractor or generated through on-site clearing into Instream Wood placements either intertwined with logs and piles or mixed with backfill. All costs associated with said placement shall be made incidental to items included in the bid schedule.

8-27.3(1) Log Triangle Unit Construction

Log triangles shall be constructed as shown in the Plans with cross-chain lashings applied to each of the corners of the log triangle. Log triangles may be pre-assembled prior to placement or assembled incrementally one log at a time. Regardless of the construction method chosen, fully assembled log triangles shall be placed such that the tops of logs at each crossing point are within the specified tolerances included in these Special Provisions. Due to irregularities in logs and the nature of this Work, the Contractor may need to shorten the length of individual logs to ensure installation of all project elements shown on the Plans. The Contractor shall obtain verbal approval from the Engineer prior to shortening any logs.

The Contractor shall drive two piles per fully assembled log triangle. Piles shall be driven vertically such that they contact the fully assembled log triangle when driving is completed. Piles shall be driven to the depth indicated on the Plans.

Rock collars shall be placed at the corners of log triangles. Rock collars shall be constructed as described in Section 8-27.3(2). Assembled rock collars shall be installed such that at least half of each boulder in the assembled rock collar sits below the finished ground elevation and the chain connecting the boulders is taut and in contact with the top log of the log triangle corner. It may be necessary to excavate and countersink boulders to achieve proper installation.

Fully assembled log triangles shall be backfilled with a combination of racking material and Streambed Mix. Racking material shall be placed such that pieces are intertwined with the log triangle, adjacent Instream Wood Placements, and other pieces of racking material to the extent practicable; partial embedment of racking material within the finished streambed is acceptable. Streambed Mix shall be placed as described in

Section 8-30. Approximately 15-20 pieces of racking material and 5 cubic yards of slash shall be incorporated into the backfill for each log triangle.

8-27.3(2) Rock Collar Assembly

Rock collars shall be assembled and placed as follows:

1. Thoroughly clean all eyebolt bond surfaces. If necessary, clean with acetone and allow to fully dry.

    1. Locate a flat surface on the boulder and use rotary hammer to drill pilot hole into boulder perpendicular to the surface of the boulder and to the specified minimum depth.

    2. Thoroughly clean the drill hole by first using compressed air to blow out dust from drilling pilot hole. Next, use a wire brush to further clean the drill hole, loosening up any remaining dust; wire brush shall resist installation into drilled hole. Lastly, use compressed air again to blow all remaining dust from the drill hole. No dust shall be detectable on visual or physical inspection. If dust is detectable, epoxy will not bond properly and cleaning steps need to be repeated.

    3. Dry fit the eyebolt into the pilot hole, testing for appropriate drill depth. If adequate depth has not been achieved to allow for the shoulder of the eyebolt to rest flush on the surface of the boulder then drill additional depth as needed and repeat cleaning and depth testing procedures.

    4. Add epoxy to the pilot hole per manufacturer instructions. The volume of epoxy added shall be such that when the eye bolt is inserted fully a small amount of epoxy oozes out of the top of the pilot hole; as a rule of thumb this is approximately two-thirds of the depth of the minimum embedment depth.

    5. Allow epoxy to cure fully prior to handling and testing.

    6. Test each assembled rock collar by lifting off the ground and ensuring proper bonding. Weigh assembled rock collars and clearly mark total weight on assembled rock collar. A fully assembled rock collar shall have a minimum total weight of 6,000 pounds.

    7. Adjust chain length as required during placement to ensure tension is applied to chain, and chain is in contact with logs when in place; the full weight of the assembled rock collar shall be applied to the top log of the log triangle when placed. Rock collars resulting in slack chain when placed at the corners of a log triangle will not be accepted and shall be corrected at no additional cost to the Contracting Agency.

8-27.3(3) Bank Rootwad Construction

Bank rootwads shall be constructed as shown in the Plans. Bank rootwads shall be placed in the location and orientation shown on the Plans; the Engineer will determine and stake an exact location based on field conditions. The Contractor shall excavate as

necessary to place individual logs such that they sit at the elevation and location specified. Logs for bank rootwads shall be placed such that the cut end has a minimum of 1 foot of cover when backfilled to the finished surface.

Native vegetation and woody material generated from on-site clearing for site access and staging shall be incorporated below bank rootwads and into backfill as directed by the Engineer.

Bank rootwads shall be backfilled by placing excavated material in lifts of not more than 18 inches and compacted with the bucket of an excavator or similar means. Excess backfill material shall be blended into finished ground as directed by the Engineer. Slash material (2-3 cubic yards) shall be incorporated into the backfill of bank rootwads.

Following placement and backfill of bank rootwads, two piles per bank rootwad shall be installed as shown on the Plans. Piles for bank rootwads shall be driven a minimum of 10 feet below the finished ground surface. One batter pile shall be driven on the downstream side of each bank rootwad such that the pile top angles upstream and/or toward the bank; the fully driven pile shall be in contact with the bank rootwad and shall generally act to resist downstream movement, rotation, and floatation of the bank rootwad. A second pile, driven vertically shall be installed on the upstream side of the bank rootwad a minimum of two feet from the cut end of the log.

8-27.3(4) Channel Rootwad Construction

Channel rootwads shall be constructed as shown in the Plans. The Engineer will determine and stake final locations for all channel rootwads based on field conditions. Channel Rootwad logs shall be placed such that the rootwad end of each log sits on top of a bank log, another channel rootwad, or a log triangle member. Root tips of each channel rootwad log shall extend approximately 3 feet past the underlying log. The cut end of each Channel Rootwad log shall be vertically angled such that the cut end sits below the downstream log triangle or channel rootwad shown in the Plans (typically 1-2 feet lower than the rootwad end of the channel rootwad). Short channel rootwads shall be 25-feet in length and long channel rootwads shall be 40-feet in length. Due to irregularities in logs and the nature of this Work, the Contractor may need to shorten the length of individual logs to ensure installation of all project elements shown on the Plans. The Contractor shall obtain verbal approval from the Engineer prior to shortening any logs.

Channel Rootwad logs may be installed before or after Streambed Mix has been placed; if Streambed Mix has already been placed when Channel Rootwad logs are installed, the Contractor shall excavate and backfill as necessary to install Channel Rootwad logs appropriately. The Engineer will be available to make field adjustments to Channel Rootwad placements. The Contractor shall incorporate slash material into backfill of partially exposed channel rootwads as directed by the Engineer.

8-27.3(5) Slash Wattle Construction

Slash wattles shall be assembled and placed at the locations shown on the Plans. To assemble slash wattles, the Contractor shall lay 2-3 pieces of racking material parallel to one another on level ground; racking material used for slash wattle assembly shall be less than 6 inches in diameter and 20 feet in length ± 1 foot. The Contractor shall place and compact slash material on the pieces of parallel racking material to form a layer

approximately 8-12 inches thick when compressed (approximately 2-3 cubic yards). An additional 2-3 pieces of racking material shall be placed on top of the compressed slash material and sisal twine or 1” diameter manila rope shall be used to lash the racking material and slash into a generally cylindrical shape. Sisal twine or manila rope shall be double wrapped around the slash wattle at a minimum of two locations to hold the shape of the slash wattle during installation. The Contractor may elect to lay out sufficient lengths of sisal twine or manila rope below the initial layer of racking material pieces to aid in construction.

Once fully assembled, slash wattles shall be installed as shown on the Plans; final locations of slash wattles will be identified and staked by the Engineer. Slash wattles shall be placed at the point where Streambed Mix meets native material. The Contractor shall excavate a trench equal to the slash wattle length and width at a depth of half the diameter of the assembled slash wattle. The slash wattle shall be placed, and excess material shall be backfilled on the bank side of the wattle.

A total of four piles shall be used to secure each slash wattle in place following placement. Two vertical piles shall be driven along the streamward side of each slash wattle. Two additional batter piles shall be driven along the bank side of each slash wattle. The piles shall be driven such that each pile comes into contact with the placed slash wattle with the tip of the batter pile crossing the vertical axis of the vertically driven piles. All piles shall be driven to a depth of at least 7 feet below the finished ground surface and pairs of piles (one vertical and one batter) shall be as close to each other as pile driving equipment allows; ideally individual piles in a pair touch one another when driving is complete.

8-27.3(6) Chain Lashings

Chain lashings shall be used to connect logs to other logs or piles when required in the Plans. Chain lashings shall be installed according to the details in the Plans. The Contractor shall ensure that logs and piles to be connected via chain lashings are in the correct orientation and are touching one another prior to applying the chain lashing. The tag end of the chain may be temporarily secured to a log or pile as appropriate to hold it in place and allow for manual tension to be applied while the loops, wraps, and crosses of the chain lashing are established.

Following initial application of the loops, wraps, and crosses for the chain lashing, the Contractor shall dress the lashing to ensure that all wraps and loops are perpendicular to the members being connected with the lashing. All slack shall be removed from the lashing and all adjacent wraps and loops shall be situated neatly and parallel with one another. The Contractor may elect to utilize additional means of securing neatly dressed and fully tensioned loops or wraps as they are made rather than dressing the entire lashing following application.

Once the lashing has been dressed, the Contractor shall apply tension between the tag and standing ends of the lashing prior to completing the lashing by connecting the ends. The method used to apply tension shall be determined by the Contractor; pulling the standing end toward the tag end using a chain hook or temporary application of chain binder are both acceptable means to apply tension prior to completing the lashing; regardless of the method used the Contractor shall be responsible for completing chain lashings that meet the requirements of this section.

While the lashing is under tension the Contractor shall connect the standing and tag ends of the lashing using a connecting link or approved equal. Once the connecting link has been applied, the temporary means of applying tension can be released slowly and excess chain lengths shall be trimmed such that no loose ends longer than 6 inches are present in the lashing.

A completed lashing shall have no visible slack or sagging of connected members. All loops, wraps, and crosses shall be neatly dressed, tight, and square to the logs and piles being connected with the lashing. The lashing shall be tight enough that no slack can be detected when manual tension is applied to any portion of the lashing. Completed lashings that do not meet these requirements shall be corrected at no additional cost to the Contracting Agency.

8-27.4 Measurement

Measurement for Instream Wood Placement will be per each Instream Wood Placement installed of a particular type. All woody material including logs, racking material and slash are considered incidental to each structure. Any piles, all necessary pile driving, and additional materials, including but not limited to rock collars, sisal twine, and manila rope, required to complete a particular Instream Wood Placement are also considered incidental to the cost of each structure.

8-27.5 Payment

The unit contract price paid for “Instream Wood Placement - ____” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for completing all Work required for installation of log triangles, bank rootwads, channel rootwads, and slash wattles as described in the Plans and these Special Provisions which may include, but is not limited to the following: furnishing and temporary stockpiling of woody material and timber piling; hauling, and placement of any additional necessary materials as shown on the project plans; minor excavation and backfill associated with placement of logs, placement of logs, driving timber piles, furnishing and installing all materials required for chain lashings, placing racking material, construction, testing, and placement of rock collars as required, restoration of the completed channel bed including sealing of the streambed and additional application of Streambed Sand if required, shortening pile tops, and other work that may be needed. No payment shall be made until the Engineer has reviewed and approved a completed Instream Wood Placement. Any deficiencies noted shall be the responsibility of the Contractor and payment will not be released until the noted deficiencies are addressed to the satisfaction of the Engineer.

The Contractor shall submit a unit cost breakdown for all Work associated with each type of Instream Wood Placement included in the Contract. At a minimum, the unit cost breakdown for each type of instream wood placement shall include unit costs for each log type required, a unit cost for slash, costs for driving timber piles, costs for rock collar materials and assembly, costs for each type of chain lashing, and other construction costs not explicitly listed above, but incorporated into the cost of Instream Wood Placement by the Contractor.

8-30.3 Construction Requirements

8-30.3(3)A Blending of Streambed Aggregates

Supplement this section with the following:

(******)

When shown on the Plans the Contractor shall incorporate slash into blended streambed aggregates at the rate specified on the Plans, or a minimum of 20 percent by volume if not specified. Slash material shall be added to the fully blended and approved aggregates and completely mixed thoroughly. Acceptance of the slash-augmented aggregate blend will be based on visual inspection by the Engineer.

8-30.3(3)C Placement of Streambed Aggregates

8-30.3(3)C1 Placement of Streambed Aggregates in Streambed

Supplement this section with the following:

(******)

As indicated on the Plans, at the downstream end of the channel construction area, the Contractor shall blend the finished channel surface with existing topography over an approximate 30-60 foot length of channel. To accomplish this blending, the Contractor shall first over excavate existing topography to a depth of approximately 4 feet and mix the excavated native material in equal parts with fully blended Streambed Mix; the resulting material comprised of Streambed Mix and native channel material shall be placed within the area of channel blending as directed by the Engineer to create a smooth transition between the constructed channel and the existing channel.

When channel bed construction occurs at the same location of a log triangle or other Instream Wood Placement, the Contractor may elect to construct lower lift(s) as appropriate to create an intermediate surface below the finished channel surface to allow for easier construction of Instream Wood Placement and partial embedment as required in Section 8-27.3.

Following placement of the final lift of Streambed Mix, the Engineer will review the completed channel bed. The design is intended to result in a continuous low flow channel and the Engineer may require the Contractor make fine grading adjustments to the channel bed to ensure the design intent is met. The Contractor shall anticipate that a 300-class excavator and operator may be required for up to 4 hours to perform fine grading of the finished channel bed.

Following approval of final channel bed construction, the Contractor shall decompact any areas of existing channels compacted by construction equipment by ripping to a depth of 18 inches and restoring the channel bed as close as possible to pre-project conditions.

Add the following new subsections:

(******)

8-30.3(3)E Boulder Placement in Channel Construction

When the total depth of Streambed Mix required exceeds 4 feet, the Contractor shall place Streambed Boulders to form an array of boulders throughout the prepared channel foundation prior to placing any blended streambed aggregates. Boulders shall be placed at a rate of approximately 4 boulders per 10 lineal feet of channel as directed by the Engineer; these boulders shall be Type 3 or Type 4 Streambed Boulders at an approximate placement ratio of one Type 4 Streambed Boulder for every two Type 3 Streambed Boulders.

While constructing the top lift of Streambed Mix and when constructing the channel within the water crossing structure shown on the Plans, the Contractor shall selectively place larger particles with a diameter greater than approximately 18-inches for use in forming the banks of the finished channel. Particles greater than 18-inches shall be placed strategically as directed by the Engineer to form a stable bank with maximum contact between individual particles as the design gradation allows. Minor adjustments to the finished channel bed may be required based on site specific conditions; any such modifications will not result in appreciable changes to overall shape or elevation of the finished channel bed. Boulders used in either of the manners described in this subsection shall be selected from the blended streambed aggregates.

8-30.3(3)F Boulder Sill Construction

Boulder sills shall be constructed and placed at the locations and elevations shown on the Plans. Boulder sills may be constructed in conjunction with or following completion of channel bed construction; constructing boulder sills following channel bed construction will require temporary excavation and backfill of the finished channel bed to allow for boulder sill construction. Construction of boulder sills shall proceed by placing single boulders at a time; with each boulder selected being of an appropriate size and shape such that contact between adjacent rocks is maximized. The Contractor shall exercise care when placing boulders to ensure that the shape and profile of the sill matches that shown on the Plans. Boulders shall be placed such that the crest of each sill is within +/- 0.1 feet vertically of the elevations identified on the Plans. No one boulder shall protrude more than 1 foot above the lines and grades of the finished channel bed shown on the Plans. The Contractor shall anticipate working closely with the Engineer during construction of boulder sills; careful selection and placement of individual boulders is a requirement for this Work and delays associated with replacing boulders, field-fit modification, and fine-tuning of boulder sill construction shall not be grounds for a cost increase. Boulders used for boulder sill construction shall be provided in addition to those used to blend streambed aggregates for the design mix shown in the Plans.

8-30.4 Measurement

This first two paragraphs are deleted and replaced with:

(******)
Streambed Sediment, Streambed Fine Sediment, Streambed Sand, Streambed Cobbles, and Streambed Boulders will be measured by the ton when used for creation of blended aggregates or construction of the channel bed.

Boulder sills will be measured per each.

8-30.5 Payment

This section is revised to read:

(******)
Payment will be made for each of the following Bid items that are included in the Proposal:

"Streambed Sediment", per ton.

"Streambed Fine Sediment", per ton.

"Streambed Sand", per ton.

"Streambed Cobbles ___ In.", per ton.

"Streambed Boulders Type ___", per ton.

The unit Contract price per ton for "Streambed Sediment", "Streambed Fine Sediment", "Streambed Sand", "Streambed Cobbles ___ In.", and "Streambed Boulders Type ___", shall be full payment for all costs to perform the Work as specified including blending of streambed aggregates, and watering in each lift, including supply and application of water to facilitate filling the interstitial voids. Furnishing and mixing slash with fully blended streambed aggregates shall be made incidental to other bid items.

"Additional Streambed Grading", by Force Account in accordance with 1-09.6.

For the purpose of providing a common Proposal for all Bidders, the Contract Agency has entered an amount for the item "Additional Streambed Grading" in the Bid Proposal to become a part of the total bid by the Contractor.

When native materials are approved for use, the Contracting Agency will compensate the Contractor by change order in accordance with Section 1-04.4.

"Rock for Erosion and Scour Protection Class ___", per ton, or cubic yard.

The unit Contract price per ton, or cubic yard for "Rock for Erosion and Scour Protection Class ___" shall be full payment for all costs to perform the Work.

Filter Blanket will be paid for in accordance with Section 8-15.5.

Quarry Spalls will be paid for in accordance with Section 8-15.3(6).

Channel Excavation will be paid for in accordance with Section 2-03.5.

Construction Geotextile for Separation will be paid for in accordance with Section 2-12.5.

"Boulder Sill", per each.

Payment for "Boulder Sill" shall be full pay for labor, materials, and equipment required to construct boulder sills as described in this Section. When boulder sill construction occurs following completion of the channel bed, all Work associated with excavation,

backfill, and restoration of the finished channel bed (including additional application of Streambed Sand and sealing of the bed if required) around the completed boulder sill shall be made incidental to the unit cost for the boulder sills. Boulders used for boulder sill construction shall be in addition to those used to create blended streambed aggregates; the cost of streambed boulders for constructing boulder sills shall be made incidental to this bid item.

Temporary Stream Diversion

8-31.3 Construction Requirements

8-31.3(1) General

8-31.3(1)B TSD Plan Implementation Meeting

This section is revised to read:

(******)

The Contractor shall arrange a meeting with the Engineer prior to implementation of the TSD Plan. At this meeting the Contractor shall explain to the Engineer the Work to be completed for the temporary work area isolation. The meeting shall be a minimum of seven calendar days prior to start of the temporary stream diversion. The meeting shall be held a minimum of 7 calendar days prior to start of the fish block net installation associated with the temporary stream diversion Work. The Contractor shall notify the Engineer 14 calendar days prior to the meeting taking place.

Those attending shall include:

1. Representing the Contractor: The superintendent, on site supervisor, foreman, the Environmental Compliance Lead and other personnel that will have on-site responsibility for implementing the Temporary Stream Diversion.

2. Representing the Contracting Agency: The Engineer, key inspection personnel, and other appropriate staff.

3. Representatives from interested permitting agencies and affected Tribes will be invited by the Contracting Agency. The Project Engineer will arrange for these interested parties to attend the TSD Plan Implementation Meeting.

The TSD shall be implemented only during the approved in-water work window and shall be operational prior to performing Work below the ordinary high-water line as required to achieve permit compliance.

Add the following new section:

(******)

8-31.3(1)C Minimum Stream Flows

Streamflow data are not available at the project site. The following data are provided for informational purposes only and do not relieve the Contractor from the responsibility of designing the TSD appropriately.

- Uncalibrated hydrologic model results suggest average monthly flows during the in-water work window are approximately 0.5 cubic feet per second. The same uncalibrated model suggests average monthly flows during the in-water work window exceed 1 cubic foot per second approximately 30 percent of the time.

- Site visits from two separate summers indicated that surface flow was essentially absent, with subsurface flow occurring within the existing channel.

- Low flow regression estimates which predict the lowest flow observed during a consecutive 7-day period over a ten-year interval suggest flows on the order of 0.3 cubic feet per second.

- During all phases of the bypass installation and decommissioning, the Contractor shall maintain flows downstream of the project site. The TSD shall be designed to convey a minimum of two cubic feet per second at all times.

A Contingency System is required for this Project. The combined capacity of the temporary stream diversion system and the Contingency System shall be designed to convey a minimum of five cubic feet per second. Additionally, the Contractor shall monitor the weather forecast daily and immediately report any forecast rain events which have a predicted rainfall amount greater than 0.5 inches over any 48-hour period within the project vicinity. The Contingency System alone shall be designed to convey a minimum flow rate of three cubic feet per second.

Division 9
Materials

9-03.14 BORROW

9-03.14(1) Gravel Borrow

(October 2021 TT SP)

(******)

Section 9-03.14(1) is deleted and replaced with the following:

Aggregate for gravel borrow shall consist of granular material, either naturally occurring or processed, and shall meet the following requirements for grading and quality:

Sieve Size	Percent Passing
4"	99-100
2"	75-100
No. 4	50-80
No. 40	30 max.
No. 200	5.0 max.
Sand Equivalent	40 min.

The use of recycled material conforming to Section 9-03.21 is encouraged. Acceptance of aggregate material shall be in accordance with Section 3-04 of the Standard Specifications.

The item shall consist of furnishing, hauling, placing, grading, and compacting gravel borrow for the roadway reconstruction. Gravel Borrow shall also be used to fill any areas of over excavation, unsuitable excavation for constructing the culvert subgrade, or as shown on the plans. Gravel Borrow shall be placed in conformance with the requirements of Section 4-04.

Appendices
(January 2, 2012)

The following appendices are attached and made a part of this contract:

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APPENDIX A:
Standard Plans

APPENDIX B:
Federal Davis Bacon Wage Rates
Washington State Prevailing Wage Rates

APPENDIX C:
Construction Contract and Contract Bond – For Information Only

APPENDIX D:
Proposal Forms – For Information Only

APPENDIX E:
Federal Aid Provisions
Required Contract Provisions for Federal Aid Construction
Contracts-FHWA 1273

APPENDIX F:
Apprentice Utilization Plan (AUR)

APPENDIX G:
Reports -
Geotechnical Report
Basis of Design Report
TESC Narrative
Drainage Report

APPENDIX H:
Environmental Permits

APPENDIX I:
Unanticipated Discoveries Protocol

APPENDIX J:
Vicinity Maps and Plans

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(May 5, 2025)

Standard Plans

The Washington State Department of Transportation *Standard Plans* M21-01, published September 2024, is made a part of this Contract with the following revisions:

A-10.30

RISER RING detail (Including SECTION view and RISER RING DIMENSIONS table): The RISER RING detail is deleted from the plan.

INSTALLATION detail, SECTION A: The “1/4”” callout is revised to read “+/- 1/4" (SEE CONTRACT ~ Note: The + 1/4" installation is shown in the Section A view)”

A-40.20

Sheet 1, NOTES 1, 2, 3, and 4 are replaced with the following:

1. Use the ½ inch joint details for bridges with expansion length less than 100 feet and for bridges with L type abutments. Use the 1 inch joint details for other applications.

2. Use detail 5, 6, 7 on steel trusses and timber bridges with concrete bridge deck panels.

3. For details 1, 2, 3, and 4, the item “HMA Joint Seal at Bridge End” shall be used for payment. For details 5 and 6, the item “HMA Joint Seal at Bridge Deck Panel Joint” shall be used for payment. For detail 7, the item “Clean and Seal Bridge Deck Panel Joint” shall be used for payment.

Sheet 2, Detail 8 reference to “6-09.3(6)” is revised to read “6-21.3(7)”.

A-50.40

Sheet 1, Plan View: The callout “BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21 OR TYPE 24 (SEE STANDARD PLAN C-25.20 OR C-25.30)” is revised to read “BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21, 24, OR 25 (SEE STANDARD PLAN C-25.20, C-25.30, OR C-25.32)”

A-60.40

Note 2 reference to “6-09.3(6)” is revised to read “6-21.3(7)”.

B-90.40

Valve Detail – DELETED

C-20.41

Note 4, First Sentence, “Box Culvert guardrail steel posts are not needed for fill depths greater than 40 inches.” is revised to read; “Box culvert guardrail steel posts are not needed for fill depths greater than 46 inches. Provide 6-inches or greater of separation between the bottom of the guardrail post and top of the culvert”

BOX CULVERT POST ASSEMBLY, ELEVATION VIEW, post assembly length dimension “41” MIN. 72” MAX.” is revised to read; “41” MIN. 78” MAX.”

SECTION A, base material depth dimension - “9” MIN. 40” MAX. (SEE NOTE 4)” is revised to read: “9” MIN. 46” MAX. (SEE NOTE 4)”

C20-43

Note 4, First Sentence: “Box culvert guardrail steel posts are not needed for fill depths greater than 40 inches.” is revised to read: “Box culvert guardrail steel posts are not needed for fill depths greater than 46 inches. Provide 6-inches or greater separation between the bottom of guardrail post and top of culvert.”

BOX CULVERT POST & BASE PLATE ASSEMBLY, ELEVATION VIEW, post assembly length dimension – “41” MIN. 72” MAX.” is revised to read: “41” MIN. 78” MAX.”

SECTION A, base material depth dimension - “9” MIN. 40” MAX. (SEE NOTE 4)” is revised to read: “9” MIN. 46” MAX. (SEE NOTE 4)”

C-23.70

Sheet 2, ANCHOR BRACKET ASSEMBLY DETAIL, dimension, “R. 5/16” is revised to read; R. 15/16”

ANCHOR PLATE DETAIL, weld callout (fillet), 1/4" is revised to read; 3/16”

C-60.20

Sheet 1, Plan view, callout – “1/2” (IN) DIAMETER X 6 1/2" (IN) LONG ANCHOR BOLT ~ PER STD. SPEC. SECT. 9-06.5(4) (TYPICAL) (SEE NOTE 7)” is revised to read: “5/8” DIAMETER x 6 1/2" (IN) LONG ANCHOR BOLT ~ PER STD. SPEC. SECT. 9-06.5(4) (TYPICAL) (SEE NOTE 7)”

C-70.15

BARRIER CONNECTION DETAIL, callout – “CENTER GRID IN CONNECTION BLOCKOUT AND FILL VOID WITH TYPE 3 GROUT (STD. SPECIFICATION SECTION 9-20.3(3) PLACED IN ACCORDANCE WITH STD. SPECIFICATION SECTION 6-20.3(20)” is revised to read “CENTER GRID IN CONNECTION BLOCKOUT AND FILL VOID WITH GROUT TYPE 3 (STD. SPECIFICATION SECTION 9-20.3(3) PLACED IN ACCORDANCE WITH STD. SPECIFICATION SECTION 6-02.3(20)”

C81.10

Sheet 1, TYPICAL SECTION – TRAFFIC BARRIER the R4 #6 bar on the traffic face may be placed 4” down from the top of the barrier to allow additional room to install BP railing or other attachments. The R4 bar shall be kept tight to the front R2 bar.

Sheet 4, the existing table “IMPACT SHEAR AND IMPACT MOMENT TABLE” is renamed to “IMPACT SHEAR AND MOMENT TABLE DECK OVERHANG AND CONNECTIONS” keynote 25 is still applicable.

Sheet 4, NOTES, the following Note is added: “3. Deck overhangs for this use constitute plain reinforced concrete typically around 8" in thickness, non-prestressed moment slabs or approach slabs, or plain reinforced and longitudinally prestressed box girders which employ a topping slab. Other Supporting Structure Systems inclusive of post-tensioned decks, walls, and or Structure segments tied together without a topping slab, with the ties in the barrier resistance load path, shall use the impact shear and moments for other supporting structures.”

Sheet 4, the following table is added with a keynote 25.

IMPACT SHEAR AND MOMENT TABLE OTHER SUPPORTING STRUCTURES										
	Interior Segment					**End Segment**				
Roadway and Fill Height at Curb Line (in)	0	6	12	18	24	0	6	12	18	24

End Segment Length (ft)	-	-	-	-	-	10.00	10.50	11.25	11.75	12.50
Impact Moment (kip*ft/ft)	19.86	24.12	28.55	33.16	37.97	20.80	25.17	29.65	34.27	39.04
Impact Shear (kip/ft)	7.89	8.04	8.23	8.44	8.68	8.27	8.39	8.54	8.72	8.92

C-81.15

Sheet 1, General Notes, Add Note 7, to read;"7. The concrete class for the moment slab shall be class 4000 typically and class 4000A when the top of the slab is used as the roadway, or sidewalk, surface. The concrete class for the barrier is defined in Standard Specification Section 6-10.3."

C-85.11

On Section B, the callout "3" EXPANDED POLYSTYRENE AROUND COLUMN (TYP.)" is revised to read "3" EXPANDED POLYSTYRENE OR POLYETHYLENE FOAM AROUND COLUMN (TYP.)"

D-3.09

Sheet 1, GEOSYNTHETIC WALL WITH 2 FT TRAFFIC SURCHARGE detail, callout – "BARRIER ON WALL ~ SEE Standard Plan D-3.15 or D-3.16" is revised to read: "BARRIER ON WALL ~ SEE CONTRACT PLANS"

D-3.10

Sheet 1, Typical Section, callout – "FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.15" is revised to read; "FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER, SEE CONTRACT PLANS"

Sheet 1, Typical Section, callout – "FOR WALLS WITH F-SHAPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.16" is revised to read; "FOR WALLS WITH F-SHAPE TRAFFIC BARRIER, SEE CONTRACT PLANS"

D-3.11

Sheet 1, Typical Section, callout – ""B" BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16" is revised to read; "B" BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)

Sheet 1, Typical Section, callout – "TYPICAL BARRIER ON BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16" is revised to read; "TYPICAL BARRIER ON BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)

D-10.10

Note 7, "If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30" is revised to read "Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 1 and 1SW".

D-10.15

Note 7, “If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30” is revised to read “Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 2 and 2SW”.

D-10.30

Wall Type 5 may be used in all cases.

D-10.35

Wall Type 6 may be used in all cases.

D-10.40

Note 5, “If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30” is revised to read “Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 7”.

D-10.45

Note 5, “If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30” is revised to read “Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 8”.

F-10.18

Note 1; “Construct curb joints at concrete pavement transverse joint locations. If all adjacent pavement is HMA, see Standard Plam F-30.10 for Curb Expansion and Contraction Joint Spacing.” is revised to read – “See Standard Plan F-30.10 and Standard Specification Section 8-04.3 for Curb Expansion and Contraction Joint details and spacing.”

F-30.10

All five instances of the “2.0% MAX.” are replaced with “2.1% MAX.”

F-40.12

The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 7 is replaced with the following:
7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement. When a ramp is constructed on a radius, the Curb Ramp length is measured on the inside radius along the back of the walkway.
Section B is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”
Section C is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-40.14

The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 7 is replaced with the following:
7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement. When

a ramp is constructed on a radius, the Curb Ramp length is measured on the inside radius along the back of the walkway.
Section A is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”
Section C is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-40.15
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 7 is replaced with the following:
7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement.
Section A is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-40.16
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 8 is replaced with the following:
7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement.
Section A is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”
Section B is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-80.10
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 6 is replaced with the following:
The running slope of the Pedestrian Ramp shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk.
Section A is amended as follows:
Delete: “15” Max.”

J-10.10
Sheet 4 of 6, “Foundation Size Reference Table”, PAD WIDTH column, Type 33xD=6’ – 3” is revised to read: 7’ – 3”. Type 342LX / NEMA P44=5’ – 10” is revised to read: 6’ – 10”
Sheet 5 of 6, Plan View, “FOR EXAMPLE PAD SHOWN HERE:, “first bullet” item, “-SPACE BETWEEN TYPE B MOD. CABINET AND 33x CABINET IS 6” (IN)” IS REVISED TO READ: “SPACE BETWEEN TYPE B MOD. CABINET (BACK OF ALL CHANNEL STEEL) AND 33x CABINET IS 6” (IN) (CHANNEL STEEL ADDS ABOUT 5” (IN)”

J-10.16
Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.17
Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.18
Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-20.01
STANDARD DIMENSIONS AND REFERENCES table, TYPE FB, Standard Height column – “15’-0” ”is revised to read; “14’-0” ”

J-20.10
DELETED

J-20.11
DELETED

J-20.26
Add Note 1, “1. One accessible pedestrian pushbutton station per pedestrian pushbutton post.”
Add General Note 2, to read: “Signs shown are for locations with pedestrian signal displays (Accessible Pedestrian Signals/APS). Accessible information device (AID) pushbuttons signs not shown.”
Revise View Titles (Both Sheets) to read: “ACCESSIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY”

J-20.16
View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

J-21.10
Sheet 1, Anchor Bolt Template, callout; “9” (IN) BOLT CIRCLE” is revised to read: “9” (IN) DIA.BOLT CIRCLE”
Base Plate Detail, callout; “3/4” (IN) STEEL PLATE WITH HOLE = POLE BASE + 1/6” (IN)” IS REVISED TO READ; “3/4” (IN) STEEL PLATE WITH HOLE = POLE BASE + 1/16” (IN)”
Flat Foundation Detail – Elevation, callout; “ANCHOR BOLTS ~ ¾” (IN) x 30” (IN) FULL THREAD ~ THREE REQ’D. PER ASSEMBLY” is revised to read; “ANCHOR BOLTS ~ ¾” (IN) x 30” (IN) FULL THREAD ~ FOUR REQ’D. PER ASSEMBLY”
Flat Foundation Detail – Elevation, dimension; 4’ – 0” is revised to read; “4’ – 0” ROUND OR 3’ – 0” SQUARE”

J-21.15
Partial View, callout, was – LOCK NIPPLE ~ 1 ½” DIAM., is revised to read; CHASE NIPPLE ~ 1 ½” (IN) DIAM.

J-21.16
On both elevation views, the overall standard height dimension “15’-0” ” is revised to read; “14’-0” ”

J-28.30
General Note 13 – “See Standard Plans C-8b and C-85.14 for steel light standards on traffic barrier” is revised to read; “See Standard Plan C-85.15 for steel light standards on traffic barrier.”

J-40.10

Sheet 2 of 2, Detail F, callout, “12 – 13 x 1 ½” S.S. PENTA HEAD BOLT AND 12” S. S. FLAT WASHER” is revised to read; “12 – 13 x 1 ½” S.S. PENTA HEAD BOLT AND 1/2” (IN) S. S. FLAT WASHER”

J-40.36

Note 1, second sentence; ”Finish shall be # 2B for backbox and # 4 for the cover.” Is revised to read; ”Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-40.37

Note 1, second sentence; ”Finish shall be # 2B for backbox and # 4 for the cover.” Is revised to read; ”Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-50.15

Sheet 1, SECTION A, the call out “LOOP LEAD-IN WIRES, TWISTED PAIRS ~ MAX. 3 PAIRS” is revised to read “LOOP LEAD-IN WIRES, TWISTED PAIRS ~ MAX. 6 PAIRS”

J-75.20

Key Notes, note 16, second bullet point, was: “1/2” (IN) x 0.45” (IN) Stainless Steel Bands”, add the following to the end of the note: “Alternate: Stainless steel cable with stainless steel ends, nuts, bolts, and washers may be used in place of stainless steel bands and associated hardware.”

J-75.55

Notes, Note A1, Revise reference, was – G-90.29, should be – G-90.20.

L-5.10

Add new general Note 9 on sheet 1 – “9. The top of wall in Section A on Sheet 1 shall be located as follows: 1) flush with the finished grade when placed within the deflection distance of the long span guardrail system (Std. Plan C-20.40), 2) Two inches maximum above finished grade when placed behind a box culvert guardrail steel post system (Std. Plan C-20.41 or C-20.43), 3) Six inches minimum for all other applications. The bottom rail shall be located at mid height between the top rail and the top of structure.”

M-20.30

Wide Dotted Lane Line Detail, reference below title, (SEE NOTE 6) is revised to read: (SEE NOTE 5)

M-40.10

Guide Post Type ~ Reflective Sheeting Applications Table, remove reference - “(SEE NOTE 5)”

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00..... 8/7/07	A-30.35-00.....10/12/07	A-50.10-02 .....7/18/24
A-10.20-00.....10/5/07	A-40.00-01.....7/6/22	A-50.40-01 .....8/17/21
A-10.30-00.....10/5/07	A-40.10-04.....7/31/19	A-60.10-03 .....12/23/14
A-20.10-00.....8/31/07	A-40.15-00.....8/11/09	A-60.20-03 .....12/23/14

A-30.10-00 ..... 11/8/07
A-30.30-01 ..... 6/16/11
A-40.20-04 ..... 1/18/17
A-40.50-03 ..... 9/12/23
A-60.30-01 ..... 6/28/18
A-60.40-00 ..... 8/31/07

1

B-5.20-03 ..... 9/9/20
B-5.40-02 ..... 1/26/17
B-5.60-02 ..... 1/26/17
B-10.20-03 ..... 8/23/23
B-10.40-02 ..... 8/17/21
B-10.70-03 ..... 8/23/23
B-15.20-01 ..... 2/7/12
B-15.40-01 ..... 2/7/12
B-15.60-02 ..... 1/26/17
B-20.20-02 ..... 3/16/12
B-20.40-04 ..... 2/27/18
B-20.60-03 ..... 3/15/12
B-25.20-02 ..... 2/27/18
B-25.60-03 ..... 8/23/23
B-30.05-00 ..... 9/9/20
B-30.10-03 ..... 2/27/18
B-30.15-00 ..... 2/27/18
B-30.20-04 ..... 2/27/18
B-30.30-03 ..... 2/27/18
B-30.50-03 ..... 2/27/18
B-30.60-00 ..... 9/9/20
B-30.40-03 ..... 2/27/18
B-30.70-04 ..... 2/27/18
B-30.80-01 ..... 2/27/18
B-30.90-02 ..... 1/26/17
B-35.20-00 ..... 6/8/06
B-35.40-01 ..... 8/23/23
B-40.20-00 ..... 6/1/06
B-40.40-02 ..... 1/26/17
B-45.20-01 ..... 7/11/17
B-45.40-01 ..... 7/21/17
B-50.20-00 ..... 6/1/06
B-55.20-03 ..... 8/17/21
B-60.20-02 ..... 9/9/20
B-60.40-01 ..... 2/27/18
B-65.20-01 ..... 4/26/12
B-65.40-00 ..... 6/1/06
B-70.20-01 ..... 3/15/22
B-75.20-03 ..... 8/17/21
B-75.50-02 ..... 3/15/22
B-70.60-01 ..... 1/26/17
B-75.60-00 ..... 6/8/06
B-80.20-00 ..... 6/8/06
B-80.40-00 ..... 6/1/06
B-85.10-01 ..... 6/10/08
B-85.20-00 ..... 6/1/06
B-85.30-00 ..... 6/1/06
B-85.40-00 ..... 6/8/06
B-85.50-01 ..... 6/10/08
B-90.10-00 ..... 6/8/06
B-90.20-00 ..... 6/8/06
B-90.30-00 ..... 6/8/06
B-90.40-01 ..... 1/26/17
B-90.50-00 ..... 6/8/06
B-95.20-02 ..... 8/17/21
B-95.40-01 ..... 6/28/18

2

C-1 ..... 9/8/22
C-1b 10/12/23
C-1d 10/31/03
C-6a 9/8/22
C-7 ..... 9/8/22
C-7a 9/8/22
C-20.10-09 ..... 10/12/23
C-20.14-05 ..... 9/8/22
C-20.15-03 ..... 10/12/23
C-20.18-04 ..... 9/8/22
C-20.40-10 ..... 10/12/23
C-20.41-05 ..... 7/18/24
C-20.43-01 ..... 7/18/24
C-20.44-00 ..... 8/13/24
C-20.45-03 ..... 9/8/22
C-20.55-00 ..... 7/30/24
C-22.16-08 ..... 10/17/23
C-22.40-11 ..... 7/21/24
C-22.45-07 ..... 7/21/24
C-23.70-01 ..... 10/16/23
C.24.10-05 ..... 7/21/24
C-24.15-00 ..... 3/15/22
C-25.20-07 ..... 8/20/21
C-25.22-06 ..... 8/20/21
C-25.26-05 ..... 8/20/21
C-25.30-01 ..... 8/20/21
C-25.32-00 ..... 7/29/24
C-25.80-05 ..... 8/12/19
C-60.10-04 ..... 7/21/24
C-60.15-01 ..... 7/21/24
C-60.20-01 ..... 9/8/22
C-60.30-02 ..... 7/21/24
C-60.40-01 ..... 7/21/24
C-60.45-01 ..... 7/21/24
C-60.50-01 ..... 7/21/24
C-60.60-01 ..... 7/21/24
C-60.70-01 ..... 9/8/22
C-60.80-02 ..... 7/21/24
C-70.10-04 ..... 10/16/23
C-70.15-01 ..... 7/21/24
C-75.10-02 ..... 9/16/20
C-75.20-03 ..... 8/20/21
C-75.30-03 ..... 8/20/21
C-80.10-03 ..... 10/16/23
C-80.20-01 ..... 6/11/14
C-80.30-02 ..... 8/20/21
C-80.40-01 ..... 6/11/14
C-85.10-00 ..... 4/8/12
C-85.11-01 ..... 9/16/20
C-85.15-03 ..... 10/17/23
C-85-18-03 ..... 9/8/22
C-81.10-00 ..... 9/12/23
C-81.15-00 ..... 9/12/23

3

D-2.36-03 ..... 6/11/14
D-2.46-02 ..... 8/13/21
D-2.84-00 ..... 11/10/05
D-2.92-01 ..... 4/26/22
D-3.09-00 ..... 5/17/12
D-3.10-01 ..... 5/29/13
D-3.11-03 ..... 6/11/14
D-4 ..... 12/11/98
D-6 ..... 6/19/98
D-10.10-01 ..... 12/2/08
D-10.15-01 ..... 12/2/08
D-10.20-01 ..... 8/7/19
D-10.25-01 ..... 8/7/19
D-10.30-00 ..... 7/8/08
D-10.35-00 ..... 7/8/08
D-10.40-01 ..... 12/2/08
D-10.45-01 ..... 12/2/08
D-20.10-00 ..... 10/9/23

4

E-1 ..... 2/21/07
E-2 ..... 5/29/98
E-4 ..... 8/27/03
E-4a 8/27/03
E-20.10-00 ..... 9/12/23
E-20.20-00 ..... 10/4/23

1

F-10.12-04 .....9/24/20
F-10.16-00 .....12/20/06
F-10.18-04 .....6/28/24
F-10.40-04 .....9/24/20
F-10.42-00 .....1/23/07
F-10.62-02..... 4/22/14
F-10.64-03..... 4/22/14
F-30.10-04..... 9/25/20
F-40.12-03..... 6/29/16
F-40.14-03..... 6/29/16
F-40.15-04 ..... 9/25/20
F-40.16-03 ..... 6/29/16
F-45.10-05 ..... 6/4/24
F-80.10-04 ..... 7/15/16

2

G-10.10-00 .....9/20/07
G-20.10-03 .....8/20/21
G-22.10-04 .....6/28/18
G-24.10-00 ..... 11/8/07
G-24.20-01 ..... 2/7/12
G-24.30-02 .....6/28/18
G-24.40-07 .....6/28/18
G-24.50-05..... 8/7/19
G-24.60-05..... 6/28/18
G-25.10-05..... 9/16/20
G-26.10-00..... 7/31/19
G-30.10-04..... 6/23/15
G-50.10-03..... 6/28/18
G-90.10-03..... 7/11/17
G-90.20-05..... 7/11/17
G-90.30-04..... 7/11/17
G-95.10-02..... 6/28/18
G-95.20-03..... 6/28/18
G-95.30-03..... 6/28/18

3

H-10.10-01..... 6/2/24
H-10.11-00..... 6/2/24
H-10.15-01..... 6/2/24
H-10.16-00..... 6/2/24
H-30.10-00 ..... 10/12/07
H-32.10-00 ..... 9/20/07
H-60.10-01 ..... 7/3/08
H-60.20-01 ..... 7/3/08
H-70.10-02..... 8/17/21
H-70.20-02..... 8/17/21

4

I-10.10-01 .....8/11/09
I-30.10-02 .....3/22/13
I-30.15-02 .....3/22/13
I-30.16-01 .....7/11/19
I-30.17-01 .....6/12/19
I-30.20-00..... 9/20/07
I-30.30-02..... 6/12/19
I-30.40-02..... 6/12/19
I-30.60-02..... 6/12/19
I-40.10-00..... 9/20/07
I-40.20-00..... 9/20/07
I-50.20-02..... 7/6/22
I-60.10-01..... 6/10/13
I-60.20-01..... 6/10/13
I-80.10-02..... 7/15/16

5

J-05.50-00 .....8/30/22
J-10 .....7/18/97
J-10.10-04 .....9/16/20
J-10.12-00 .....9/16/20
J-10.14-00 .....9/16/20
J-10.15-01 .....6/11/14
J-10.16-02 .....8/18/21
J-10.17-02 .....8/18/21
J-10.18-02 .....8/18/21
J-10.20-04 .....8/18/21
J-10.21-02 .....8/18/21
J-10.22-03 .....10/4/23
J-10.25-01 .....6/21/24
J-10.26-00 .....8/30/22
J-12.15-00 .....6/28/18
J-12.16-00 .....6/28/18
J-15.10-01 .....6/11/14
J-15.15-02 .....7/10/15
J-20.01-01 .....6/21/24
J-20.05-00 .....6/21/24
J-20.10-05 .....10/4/23
J-20.11-03.....7/31/19
J-20.15-04 .....6/21/24
J-20.16-02 .....6/30/14
J-20.20-02 .....5/20/13
J-20.26-01 .....7/12/12
J-26.10-03..... 7/21/16
J-26.15-01..... 5/17/12
J-26.20-01..... 6/28/18
J-27.10-01..... 7/21/16
J-27.15-00..... 3/15/12
J-28.01-00..... 8/30/22
J-28.10-02..... 8/7/19
J-28.22-00..... 8/07/07
J-28.24-02..... 9/16/20
J-28.26-01..... 12/02/08
J-28.30-04..... 6/18/24
J-28.40-02..... 6/11/14
J-28.42-01..... 6/11/14
J-28.43-01..... 6/28/18
J-28.45-03..... 7/21/16
J-28.50-03..... 7/21/16
J-28.60-03..... 8/27/21
J-28.70-04..... 8/30/22
J-29.10-02..... 8/26/22
J-29.15-01..... 7/21/16
J-29.16-02..... 7/21/16
J-30.10-01..... 8/26/22
J-40.01-00..... 8/30/22
J-40.05-00..... 7/21/16
J-40.10-04..... 4/28/16
J-40.20-03..... 4/28/16
J-50.05-00..... 7/21/17
J-50.10-01..... .7/31/19
J-50.11-02..... 7/31/19
J-50.12-02..... 8/7/19
J-50.13-01..... 8/30/22
J-50.15-01..... 7/21/17
J-50.16-01..... 3/22/13
J-50.18-00..... 8/7/19
J-50.19-00..... 8/7/19
J-50.20-00..... 6/3/11
J-50.25-00..... 6/3/11
J-50.30-00..... 6/3/11
J-60.05-01..... 7/21/16
J-60.11-00..... 5/20/13
J-60.12-00..... 5/20/13
J-60.13-00..... 6/16/10
J-60.14-01..... 7/31/19
J-75.10-02..... 7/10/15
J-75.20-01..... 7/10/15
J-75.30-02..... 7/10/15
J-75.50-00..... 8/30/22
J-75.55-00..... 8/30/22
J-80.05-00..... 8/30/22
J-80.10-01..... 8/18/21
J-80.12-00..... 8/18/21
J-80.15-00..... 6/28/18

J-21.10-05 .....6/21/24
J-21.15-01 .....6/10/13
J-21.16-02 .....6/21/24
J-21.17-01 .....6/10/13
J-21.20-01 .....6/10/13
J-22.15-03 .....6/21/24
J-22.16-03 .....7/10/15
J-22.17-00 .....6/21/24
J-40.30-04 ..... 4/28/16
J-40.35-01 ..... 5/29/13
J-40.36-02 ..... 7/21/17
J-40.37-02 ..... 7/21/17
J-40.38-01 ..... 5/20/13
J-40.39-00 ..... 5/20/13
J-40.40-02 ..... 7/31/19
J-45.36-00 ..... 7/21/17
J-81.10-02..... 8/18/21
J-81.12-00..... 9/3/21
J-84.05-00..... 8/30/22
J-86.10-00..... 6/28/18
J-90.10-03..... 6/28/18
J-90.20-03..... 6/28/18
J-90.21-02..... 6/28/18
J-90.50-00..... 6/28/18

K-70.20-01..... 6/1/16
K-80.10-02.....9/25/20
K-80.32-00 ..... 8/17/21
K-80.34-00 ..... 8/17/21
K-80.35-01 ..... 9/16/20
K-80.37-01 ..... 9/16/20

L-5.10-02 ..... 6/5/24
L-5.15-00 .....9/19/22
L-10.10-02 .....6/21/12
L-20.10-03..... 7/14/15
L-30.10-02..... 6/11/14
L-40.15-01..... 6/16/11
L-40.20-02..... 6/21/12
L-70.10-01..... 5/21/08
L-70.20-01..... 5/21/08

M-1.20-04 .....9/25/20
M-1.40-03 .....9/25/20
M-1.60-03 .....9/25/20
M-1.80-03 .....6/3/11
M-2.20-03 .....7/10/15
M-2.21-00 .....7/10/15
M-3.10-04 .....9/25/20
M-3.20-04 ..... 8/2/22
M-3.30-04 .....9/25/20
M-3.40-04 .....9/25/20
M-3.50-03 .....9/25/20
M-5.10-03 .....9/25/20
M-7.50-01 .....1/30/07
M-9.50-02 .....6/24/14
M-9.60-00..... 2/10/09
M-11.10-04 ..... 8/2/22
M-12.10-04..... 6/28/24
M-15.10-02..... 7/17/23
M-17.10-02..... 7/3/08
M-20.10-04..... 8/2/22
M-20.20-02..... 4/20/15
M-20.30-05..... 6/28/24
M-20.40-03..... 6/24/14
M-20.50-02..... 6/3/11
M-24.20-02..... 4/20/15
M-24.40-02..... 4/20/15
M-24.60-04..... 6/24/14
M-24.65-00..... 7/11/17
M-24.66-00..... 7/11/17
M-40.10-04..... 10/17/23
M-40.20-00..... 10/12/07
M-40.30-01..... 7/11/17
M-40.40-00..... 9/20/07
M-40.50-00..... 9/20/07
M-40.60-00..... 9/20/07
M-60.10-01..... 6/3/11
M-60.20-03..... 8/17/21
M-65.10-03..... 8/17/21
M-80.10-01..... 6/3/11
M-80.20-00..... 6/10/08
M-80.30-00..... 6/10/08

APPENDIX A

Standard Plans

Link to WSDOT Standard Plans

https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/standard-plans

APPENDIX B

Federal Davis Bacon Wage Rates

Washington State Prevailing Wage Rates

"General Decision Number: WA20250001 **09/26/2025**
Superseded General Decision Number: WA20240001
State: Washington
Construction Type: Highway
Counties: Washington Statewide.

HIGHWAY (Excludes D.O.E. Hanford Site in Benton and Franklin Counties)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	02/07/2025
2	03/21/2025
3	04/25/2025
4	05/30/2025
5	06/06/2025
6	06/27/2025
7	07/18/2025
8	08/08/2025
9	08/22/2025
10	08/29/2025
11	09/05/2025
12	09/12/2025
13	**09/26/2025**

*** CARP0059-021 06/01/2025**

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES

	Rates	Fringes
CARPENTER		
Assistant Diver Tender, ROV Tender/Technician	**$ 50.76**	**17.28**
Bridge, Dock, and Wharf Carpenter	**$ 48.21**	**17.28**
Carpenter	**$ 44.21**	**17.28**
Diver Standby	**$ 55.24**	**17.28**
Diver Tender, Manifold Operator, ROV Operator	**$ 54.24**	**17.28**
Diver Wet	**$ 110.48**	**17.28**
Manifold Operator-Mixed Gas	**$ 58.24**	**17.28**
Piledriver: Includes driving, pulling, cutting, placing collars, setting, welding, or creosote treated material, on all piling	**$ 49.76**	**17.28**

CARP0096-002 06/01/2025

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM Counties

	Rates	Fringes
MILLWRIGHT	$ 55.39	22.38

*** CARP0096-007 06/01/2025**

SOUTHWEST WASHINGTON: CLARK, COWLITZ, LEWIS (Piledriver only), PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to Willapa Bay to the Pacific Ocean), SKAMANIA, and WAHKIAKUM Counties.

	Rates	Fringes
MILLWRIGHT	**$ 59.35**	**22.38**

*** CARP0196-004 06/01/2025**

CLARK, COWLITZ, *PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES
***PORTION OF PACIFIC COUNTY SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN, AND THENCE NORTH THROUGH THE NATURAL WATERWAY TO THE PACIFIC OCEAN (THIS INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY)**

	Rates	Fringes
Piledriver	**$ 56.06**	**16.81**

*** CARP0196-006 06/01/2025**

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, *PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES
*** PORTION OF PACIFIC COUNTY NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN COUNTIES OR PARTS OF COUNTIES EAST OF THE 120TH MERIDIAN**

	Rates	Fringes
Piledriver	**$ 65.53**	**19.13**

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* CARP0206-009 06/01/2025

KING AND KITSAP COUNTIES

	Rates	Fringes
CARPENTER		
BRIDGE CARPENTER	$ 65.58	19.13
CARPENTER	$ 63.98	19.13
DIVER TENDER	$ 71.77	19.13
DIVER	$ 125.44	19.13

* CARP0360-006 09/15/2025

PACIFIC COUNTY
PORTION OF PACIFIC COUNTY NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN COUNTIES OR PARTS OF COUNTIES EAST OF THE 120TH MERIDIAN

	Rates	Fringes
Carpenters:		
Bridge Carpenter	$ 65.58	19.13
Carpenter/Drywall Hanger	$ 63.98	19.13
Diver Tender	$ 71.77	19.13
Diver	$ 125.44	19.13

* CARP0360-007 06/01/2025

PACIFIC COUNTY
PORTION OF PACIFIC COUNTY SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN, AND THENCE NORTH THROUGH THE NATURAL WATERWAY TO THE PACIFIC OCEAN (THIS INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY)

	Rates	Fringes
Carpenters:		
CARPENTERS	$ 54.69	16.81
DIVERS TENDERS	$ 64.32	16.81
DIVERS	$ 108.33	16.81
DRYWALL	$ 54.59	16.81

* CARP0360-013 06/01/2025

GRAYS HARBOR, LEWIS, MASON, PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
CARPENTER		
BRIDGE CARPENTER	$ 65.58	19.13
CARPENTER	$ 63.98	19.13
DIVER TENDER	$ 71.77	19.13
DIVER	$ 125.44	19.13

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* CARP0425-006 09/15/2025

CLALLAM, ISLAND, JEFFERSON, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES

	Rates	Fringes
CARPENTER		
BRIDGE CARPENTER	$ 65.58	19.13
CARPENTER	$ 63.98	19.13
DIVER TENDER	$ 71.77	19.13
DIVER	$ 125.44	19.13

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* CARP0503-021 06/01/2025

CLARK, COWLITZ, SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Carpenters:		
CARPENTERS	$ 54.69	16.81
DIVERS TENDERS	$ 64.32	16.81
DIVERS	$ 108.33	16.81
DRYWALL	$ 54.59	16.81

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* CARP1607-010 06/01/2025

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KLICKITAT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES

	Rates	Fringes
MILLWRIGHT	$ 61.62	20.43

*** ELEC0046-001 08/04/2025**

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

	Rates	Fringes
CABLE SPLICER	**$ 83.56**	**33.71**
ELECTRICIAN	**$ 75.96**	**33.48**

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* ELEC0048-003 01/01/2025

CLARK, KLICKITAT AND SKAMANIA COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 44.22	21.50
ELECTRICIAN	$ 63.50	29.73

HOURLY ZONE PAY:

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Portland, The Dalles, Hood River, Tillamook, Seaside and Astoria

Zone Pay:
Zone 1: 31-50 miles $1.50/hour
Zone 2: 51-70 miles $3.50/hour
Zone 3: 71-90 miles $5.50/hour
Zone 4: Beyond 90 miles $9.00/hour

*These are not miles driven. Zones are based on Delorrne Street Atlas USA 2006 plus.

ELEC0048-029 01/01/2025

COWLITZ AND WAHKIAKUM COUNTY

	Rates	Fringes
CABLE SPLICER	$ 44.22	21.50
ELECTRICIAN	$ 63.50	29.73

ELEC0073-001 07/01/2025

ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 34.10	16.68
ELECTRICIAN	$ 49.55	19.09

ELEC0076-002 08/31/2025

GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 71.65	26.76
ELECTRICIAN	$ 65.14	26.56

ELEC0112-005 06/01/2025

ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA WALLA, YAKIMA COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 63.00	27.87
ELECTRICIAN	$ 60.00	27.78

ELEC0191-003 06/01/2022

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 44.23	17.73
ELECTRICIAN	$ 53.20	27.51

ELEC0191-004 06/01/2018

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 40.82	17.63
ELECTRICIAN	$ 42.45	21.34

ENGI0302-092 06/01/2025

KING AND SNOHOMISH COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1	$ 61.93	27.57
Group 1A	$ 62.85	27.57
Group 1AA	$ 63.75	27.57
Group 1AAA	$ 64.66	27.57
Group 2	$ 61.14	27.57
Group 3	$ 60.46	27.57
Group 4	$ 56.63	27.57

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1AAA
Cranes: 300 tons and over or 300? of boom including jib with attachments; Cranes Friction: 200 tons and over; Tower Cranes: over 250? in height from base to boom.

Group 1AA
Cranes: 200 tons- 299 tons, or 250? of boom including jib with attachments; Cranes: Friction cranes through 199 tons; Leverman; Shovel, Excavator, Backhoes: over 90 metric tons; Tower Crane: over 175? through 250? in height, base to boom.

Group 1A
Cranes: 100 tons through 199 tons, or 150? of boom (including jib with attachments); Drilling Machine; Overhead, bridge type: 100 tons and over; Tower Crane: up to 175? in height base to boom; Loader: Overhead 8 yards & over; Shovel, Excavator, Backhoes: over 50 metric tons and up to 90 metric tons; Mechanics.

Group 1
Asphalt plant Operators; Cableways; Concrete Pump: Truck mount with boom attachment over 42M; Cranes: 45 tons through 99 tons, under 150? of boom (including jib with attachments); Overhead, bridge type: 45 tons through 99 tons; Derricks: on building work; Hard Tail End Dump: articulating off-road equipment 45 yards & over; Loader: Overhead 6 yards but not including 8 yards; Motor Patrol Graders; Mucking Machine, Mole, Tunnel Drill, Boring, Road Header and/or Shield; Quad 9, HD 41, D10 and over; Remote Control Operator on rubber tired earth moving equipment; Rollagon; Scrapers, self-propelled: 45 yards and over; Spreader: Topsider & Screedman; Shovel, Excavator, Backhoe: over 30 metric tons and up to 50 metric tons; Slipform Pavers; Transporters: all track or truck type; Welder.

Group 2
Batch Plant Operator: concrete; Barrier Machine: (Zipper); Bump Cutter; Cranes: 20 tons through 44 tons with attachments; Overhead, bridge type Crane: 20 tons through 44 tons; Chipper; Concrete Pump: truck mount with boom attachment up to 42M; Crusher; Deck Engineer/Deck Winches (Power); Grade Engineer: using blue prints, cut sheets, etc.; -Finishing Machine: Bidwell and Gamaco & Similar Equipment; Guardrail Punch; Hard Tail End Dump: articulating off-road equipment under 45 yards; Horizontal/Directional Drill Operator; Loaders: Overhead under 6 yards; Loaders: Plant Feed; Locomotives: all; Material Transfer Device; Piledriver: (other than crane mount); Quick Tower: no cab, under 100 feet in height base to boom; Roto-Mill, Roto-Grinder; Shovel, Excavator, Backhoe, Tractor: 15 to 30 metric tons; Subgrader Trimmer; Scraper: self propelled under 45 yards; Truck Crane Oiler/Driver: 100 tons and over; Truck Mount Portable Conveyor; -Vac Truck (Vactor Guzzler, Hydro Excavator); Yo

Yo Pay Dozer.

Group 3
Cranes: through 19 tons with attachments, A-frame over 10 tons; Concrete Pump: Mounted or trailer high pressure line pump, pump high pressure; Conveyors; Dozers: D-9 & under; Drill Oilers: auger type, truck or crane mount; Forklift: 3000 lbs and over with attachments; Horizontal/Directional Drill Locator; Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato; Tower Bucket Elevators; Hydralifts/Boom trucks: over 10 tons; Loaders: elevating type belt; Plant Oiler: asphalt, crusher; Rigger/Signal Person, Bellman (Certified); Roller: plant mix or multi-lift materials; Saws: Concrete; Scrapers: concrete & carry all Service Engineers: equipment; Trenching Machines; Truck Crane Oiler/Driver: under 100 tons; Shovel, Excavator, Backhoe, Tractors: under 15 metric tons.

Group 4
Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine: Laser Screed; Cranes, A-frame: 10 tons and under; Elevator and man-lift: permanent and shaft type; Forklifts: under 3000 lbs. with attachments; Gradechecker/Stakeman; Hydralifts/Boom Trucks: 10 tons and under; Oil distributors, Blower Distribution & Mulch Seeding Operator; Pavement Breaker; Posthole Digger: mechanical; Power Plant; Pumps: water; -Rigger and Bellman; Roller: other than plant mix; Wheel Tractors: Farm all type; Shotcrete/Gunite Equipment; Brokk: Remote demolition equipment

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ENGI0302-093 06/01/2025

SKAGIT AND WHATCOM COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1	$ 61.47	27.57
Group 1A	$ 62.39	27.57
Group 1AA	$ 63.29	27.57
Group 1AAA	$ 64.19	27.57
Group 2	$ 60.69	27.57
Group 3	$ 60.02	27.57
Group 4	$ 56.19	27.57

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1AAA
Cranes: 300 tons and over or 300? of boom including jib with attachments; Cranes Friction: 200 tons and over; Tower Cranes: over 250? in height from base to boom.

Group 1AA
Cranes: 200 tons- 299 tons, or 250? of boom including jib with attachments; Cranes: Friction cranes through 199 tons; Leverman; Shovel, Excavator, Backhoes: over 90 metric tons; Tower Crane: over 175? through 250? in height, base to boom.

Group 1A
Cranes: 100 tons through 199 tons, or 150? of boom (including jib with attachments); Drilling Machine; Overhead, bridge type: 100 tons and over; Tower Crane: up to 175? in height base to boom; Loader: Overhead 8 yards & over; Shovel, Excavator, Backhoes: over 50 metric tons and up to 90 metric tons; Mechanics.

Group 1
Asphalt plant Operators; Cableways; Concrete Pump: Truck mount with boom attachment over 42M; Cranes: 45 tons through 99 tons, under 150? of boom (including jib with attachments); Overhead, bridge type: 45 tons through 99 tons; Derricks: on building work; Hard Tail End Dump: articulating off-road equipment 45 yards & over; Loader: Overhead 6 yards but not including 8 yards; Motor Patrol Graders; Mucking Machine, Mole, Tunnel Drill, Boring, Road Header and/or Shield; Quad 9, HD 41, D10 and over; Remote Control Operator on rubber tired earth moving equipment; Rollagon; Scrapers, self-propelled: 45 yards and over; Spreader: Topsider & Screedman; Shovel, Excavator, Backhoe: over 30 metric tons and up to 50 metric tons; Slipform Pavers; Transporters: all track or truck type; Welder.

Group 2
Batch Plant Operator: concrete; Barrier Machine: (Zipper); Bump Cutter; Cranes: 20 tons through 44 tons with attachments; Overhead, bridge type Crane: 20 tons through 44 tons; Chipper; Concrete Pump: truck mount with boom attachment up to 42M; Crusher; Deck Engineer/Deck Winches (Power); Grade Engineer: using blue prints, cut sheets, etc.; -Finishing Machine: Bidwell and Gamaco & Similar Equipment; Guardrail Punch; Hard Tail End Dump: articulating off-road equipment under 45 yards; Horizontal/Directional Drill Operator; Loaders: Overhead under 6 yards; Loaders: Plant Feed; Locomotives: all; Material Transfer Device; Piledriver: (other than crane mount); Quick Tower: no cab, under 100 feet in height base to boom; Roto-Mill, Roto-Grinder; Shovel, Excavator, Backhoe, Tractor: 15 to 30 metric tons; Subgrader Trimmer; Scraper: self propelled under 45 yards; Truck Crane Oiler/Driver: 100 tons and over; Truck Mount Portable Conveyor; -Vac Truck (Vactor Guzzler, Hydro Excavator); Yo Yo Pay Dozer.

Group 3
Cranes: through 19 tons with attachments, A-frame over 10 tons; Concrete Pump: Mounted or trailer high pressure line pump, pump high pressure; Conveyors; Dozers: D-9 & under; Drill Oilers: auger type, truck or crane mount; Forklift:

3000 lbs and over with attachments; Horizontal/Directional Drill Locator; Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato; Tower Bucket Elevators; Hydralifts/Boom trucks: over 10 tons; Loaders: elevating type belt; Plant Oiler: asphalt, crusher; Rigger/Signal Person, Bellman (Certified); Roller: plant mix or multi-lift materials; Saws: Concrete; Scrapers: concrete & carry all Service Engineers: equipment; Trenching Machines; Truck Crane Oiler/Driver: under 100 tons; Shovel, Excavator, Backhoe, Tractors: under 15 metric tons.

Group 4
Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine: Laser Screed; Cranes, A-frame: 10 tons and under; Elevator and man-lift: permanent and shaft type; Forklifts: under 3000 lbs. with attachments; Gradechecker/Stakeman; Hydralifts/Boom Trucks: 10 tons and under; Oil distributors, Blower Distribution & Mulch Seeding Operator; Pavement Breaker; Posthole Digger: mechanical; Power Plant; Pumps: water; -Rigger and Bellman; Roller: other than plant mix; Wheel Tractors: Farm all type; Shotcrete/Gunite Equipment; Brokk: Remote demolition equipment

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ENGI0302-094 06/01/2025

KITSAP COUNTY

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1	$ 60.93	27.57
Group 1A	$ 61.83	27.57
Group 1AA	$ 62.73	27.57
Group 1AAA	$ 63.62	27.57
Group 2	$ 60.14	27.57
Group 3	$ 59.49	27.57
Group 4	$ 55.68	27.57

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1AAA
Cranes: 300 tons and over or 300? of boom including jib with attachments; Cranes Friction: 200 tons and over; Tower Cranes: over 250? in height from base to boom.

Group 1AA
Cranes: 200 tons- 299 tons, or 250? of boom including jib with attachments; Cranes: Friction cranes through 199 tons; Leverman; Shovel, Excavator, Backhoes: over 90 metric tons; Tower Crane: over 175? through 250? in height, base to boom.

Group 1A
Cranes: 100 tons through 199 tons, or 150? of boom (including jib with attachments); Drilling Machine; Overhead, bridge

type: 100 tons and over; Tower Crane: up to 175? in height base to boom; Loader: Overhead 8 yards & over; Shovel, Excavator, Backhoes: over 50 metric tons and up to 90 metric tons; Mechanics.

Group 1
Asphalt plant Operators; Cableways; Concrete Pump: Truck mount with boom attachment over 42M; Cranes: 45 tons through 99 tons, under 150? of boom (including jib with attachments); Overhead, bridge type: 45 tons through 99 tons; Derricks: on building work; Hard Tail End Dump: articulating off-road equipment 45 yards & over; Loader: Overhead 6 yards but not including 8 yards; Motor Patrol Graders; Mucking Machine, Mole, Tunnel Drill, Boring, Road Header and/or Shield; Quad 9, HD 41, D10 and over; Remote Control Operator on rubber tired earth moving equipment; Rollagon; Scrapers, self-propelled: 45 yards and over; Spreader: Topsider & Screedman; Shovel, Excavator, Backhoe: over 30 metric tons and up to 50 metric tons; Slipform Pavers; Transporters: all track or truck type; Welder.

Group 2
Batch Plant Operator: concrete; Barrier Machine: (Zipper); Bump Cutter; Cranes: 20 tons through 44 tons with attachments; Overhead, bridge type Crane: 20 tons through 44 tons; Chipper; Concrete Pump: truck mount with boom attachment up to 42M; Crusher; Deck Engineer/Deck Winches (Power); Grade Engineer: using blue prints, cut sheets, etc.; -Finishing Machine: Bidwell and Gamaco & Similar Equipment; Guardrail Punch; Hard Tail End Dump: articulating off-road equipment under 45 yards; Horizontal/Directional Drill Operator; Loaders: Overhead under 6 yards; Loaders: Plant Feed; Locomotives: all; Material Transfer Device; Piledriver: (other than crane mount); Quick Tower: no cab, under 100 feet in height base to boom; Roto-Mill, Roto-Grinder; Shovel, Excavator, Backhoe, Tractor: 15 to 30 metric tons; Subgrader Trimmer; Scraper: self propelled under 45 yards; Truck Crane Oiler/Driver: 100 tons and over; Truck Mount Portable Conveyor; -Vac Truck (Vactor Guzzler, Hydro Excavator); Yo Yo Pay Dozer.

Group 3
Cranes: through 19 tons with attachments, A-frame over 10 tons; Concrete Pump: Mounted or trailer high pressure line pump, pump high pressure; Conveyors; Dozers: D-9 & under; Drill Oilers: auger type, truck or crane mount; Forklift: 3000 lbs and over with attachments; Horizontal/Directional Drill Locator; Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato; Tower Bucket Elevators; Hydralifts/Boom trucks: over 10 tons; Loaders: elevating type belt; Plant Oiler: asphalt, crusher; Rigger/Signal Person, Bellman (Certified); Roller: plant mix or multi-lift materials; Saws: Concrete; Scrapers: concrete & carry all Service Engineers: equipment; Trenching Machines; Truck Crane Oiler/Driver: under 100 tons; Shovel, Excavator, Backhoe,

Tractors: under 15 metric tons.

Group 4
Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine: Laser Screed; Cranes, A-frame: 10 tons and under; Elevator and man-lift: permanent and shaft type; Forklifts: under 3000 lbs. with attachments; Gradechecker/Stakeman; Hydralifts/Boom Trucks: 10 tons and under; Oil distributors, Blower Distribution & Mulch Seeding Operator; Pavement Breaker; Posthole Digger: mechanical; Power Plant; Pumps: water; -Rigger and Bellman; Roller: other than plant mix; Wheel Tractors: Farm all type; Shotcrete/Gunite Equipment; Brokk: Remote demolition equipment

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ENGI0302-095 06/01/2025

CHELAN(WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS(WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS(WEST OF THE 120TH MERIDIAN), MASON, OKANOGAN(WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA(WEST OF THE 120TH MERIDIAN) COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1	$ 60.67	27.57
Group 1A	$ 61.56	27.57
Group 1AA	$ 62.47	27.57
Group 1AAA	$ 63.35	27.57
Group 2	$ 59.88	27.57
Group 3	$ 59.23	27.57
Group 4	$ 55.43	27.57

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1AAA
Cranes: 300 tons and over or 300? of boom including jib with attachments; Cranes Friction: 200 tons and over; Tower Cranes: over 250? in height from base to boom.

Group 1AA
Cranes: 200 tons- 299 tons, or 250? of boom including jib with attachments; Cranes: Friction cranes through 199 tons; Leverman; Shovel, Excavator, Backhoes: over 90 metric tons; Tower Crane: over 175? through 250? in height, base to boom.

Group 1A
Cranes: 100 tons through 199 tons, or 150? of boom (including jib with attachments); Drilling Machine; Overhead, bridge type: 100 tons and over; Tower Crane: up to 175? in height base to boom; Loader: Overhead 8 yards & over; Shovel, Excavator, Backhoes: over 50 metric tons and up to 90 metric tons; Mechanics.

Group 1
Asphalt plant Operators; Cableways; Concrete Pump: Truck mount with boom attachment over 42M; Cranes: 45 tons through 99 tons, under 150? of boom (including jib with attachments); Overhead, bridge type: 45 tons through 99 tons; Derricks: on building work; Hard Tail End Dump: articulating off-road equipment 45 yards & over; Loader: Overhead 6 yards but not including 8 yards; Motor Patrol Graders; Mucking Machine, Mole, Tunnel Drill, Boring, Road Header and/or Shield; Quad 9, HD 41, D10 and over; Remote Control Operator on rubber tired earth moving equipment; Rollagon; Scrapers, self-propelled: 45 yards and over; Spreader: Topsider & Screedman; Shovel, Excavator, Backhoe: over 30 metric tons and up to 50 metric tons; Slipform Pavers; Transporters: all track or truck type; Welder.

Group 2
Batch Plant Operator: concrete; Barrier Machine: (Zipper); Bump Cutter; Cranes: 20 tons through 44 tons with attachments; Overhead, bridge type Crane: 20 tons through 44 tons; Chipper; Concrete Pump: truck mount with boom attachment up to 42M; Crusher; Deck Engineer/Deck Winches (Power); Grade Engineer: using blue prints, cut sheets, etc.; -Finishing Machine: Bidwell and Gamaco & Similar Equipment; Guardrail Punch; Hard Tail End Dump: articulating off-road equipment under 45 yards; Horizontal/Directional Drill Operator; Loaders: Overhead under 6 yards; Loaders: Plant Feed; Locomotives: all; Material Transfer Device; Piledriver: (other than crane mount); Quick Tower: no cab, under 100 feet in height base to boom; Roto-Mill, Roto-Grinder; Shovel, Excavator, Backhoe, Tractor: 15 to 30 metric tons; Subgrader Trimmer; Scraper: self propelled under 45 yards; Truck Crane Oiler/Driver: 100 tons and over; Truck Mount Portable Conveyor; -Vac Truck (Vactor Guzzler, Hydro Excavator); Yo Yo Pay Dozer.

Group 3
Cranes: through 19 tons with attachments, A-frame over 10 tons; Concrete Pump: Mounted or trailer high pressure line pump, pump high pressure; Conveyors; Dozers: D-9 & under; Drill Oilers: auger type, truck or crane mount; Forklift: 3000 lbs and over with attachments; Horizontal/Directional Drill Locator; Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato; Tower Bucket Elevators; Hydralifts/Boom trucks: over 10 tons; Loaders: elevating type belt; Plant Oiler: asphalt, crusher; Rigger/Signal Person, Bellman (Certified); Roller: plant mix or multi-lift materials; Saws: Concrete; Scrapers: concrete & carry all Service Engineers: equipment; Trenching Machines; Truck Crane Oiler/Driver: under 100 tons; Shovel, Excavator, Backhoe, Tractors: under 15 metric tons.

Group 4
Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine: Laser Screed; Cranes, A-frame: 10 tons and under; Elevator and man-lift: permanent and shaft type; Forklifts: under 3000 lbs. with attachments; Gradechecker/Stakeman; Hydralifts/Boom Trucks: 10 tons and under; Oil distributors, Blower Distribution & Mulch Seeding Operator; Pavement Breaker; Posthole Digger: mechanical; Power Plant; Pumps: water; -Rigger and Bellman; Roller: other than plant mix; Wheel Tractors: Farm all type; Shotcrete/Gunite Equipment; Brokk: Remote demolition equipment

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ENGI0302-124 06/01/2024

ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 35.91	22.45
GROUP 2	$ 36.28	22.45
GROUP 3	$ 36.99	22.45
GROUP 4	$ 37.18	22.45
GROUP 5	$ 37.37	22.45
GROUP 6	$ 37.69	22.45
GROUP 7	$ 38.01	22.45
GROUP 8	$ 39.88	22.45

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom;

Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled; Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginau or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment(8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operaotr (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers)(Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver;

Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Rollerman (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel(under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragine; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform Trailers (Goldhofer, Shaurerly andSimilar); Ultra High Pressure Wateriet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead,rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

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ENGI0302-125 06/01/2024

ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 38.91	22.45
GROUP 2	$ 39.28	22.45
GROUP 3	$ 39.99	22.45
GROUP 4	$ 40.18	22.45
GROUP 5	$ 40.37	22.45
GROUP 6	$ 40.69	22.45
GROUP 7	$ 40.01	22.45
GROUP 8	$ 42.88	22.45

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled; Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginau or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment(8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operaotr (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers)(Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver; Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Rollerman (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel(under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragine; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform

Trailers (Goldhofer, Shaurerly andSimilar); Ultra High Pressure Wateriet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead,rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

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ENGI0612-001 06/01/2025

PIERCE County

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A	$ 62.32	27.32
GROUP 1AA	$ 63.22	27.32
GROUP 1AAA	$ 64.11	27.32
GROUP 1	$ 61.41	27.32
GROUP 2	$ 60.63	27.32
GROUP 3	$ 59.96	27.32
GROUP 4	$ 56.15	27.32

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) = $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:
1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class ""D"" Suit - Base wage rate plus $ .50 per hour.
H-2 Class ""C"" Suit - Base wage rate plus $1.00 per hour.
H-3 Class ""B"" Suit - Base wage rate plus $1.50 per hour.
H-4 Class ""A"" Suit - Base wage rate plus $2.00 per hour.

ENGI0612-008 06/01/2025

LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A	$ 61.22	27.32
GROUP 1AA	$ 62.12	27.32
GROUP 1AAA	$ 62.99	27.32
GROUP 1	$ 60.32	27.32
GROUP 2	$ 59.56	27.32
GROUP 3	$ 58.89	27.32
GROUP 4	$ 55.13	27.32

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) = $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom

trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:
1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class ""D"" Suit - Base wage rate plus $ .50 per hour.
H-2 Class ""C"" Suit - Base wage rate plus $1.00 per hour.
H-3 Class ""B"" Suit - Base wage rate plus $1.50 per hour.
H-4 Class ""A"" Suit - Base wage rate plus $2.00 per hour.

ENGI0612-012 06/01/2025

THURSTON COUNTY

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A	$ 61.81	27.32
GROUP 1AA	$ 62.71	27.32
GROUP 1AAA	$ 63.59	27.32
GROUP 1	$ 60.91	27.32
GROUP 2	$ 60.14	27.32
GROUP 3	$ 59.46	27.32
GROUP 4	$ 55.68	27.32

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) = $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all;

Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class ""D"" Suit - Base wage rate plus $ .50 per hour.
H-2 Class ""C"" Suit - Base wage rate plus $1.00 per hour.
H-3 Class ""B"" Suit - Base wage rate plus $1.50 per hour.
H-4 Class ""A"" Suit - Base wage rate plus $2.00 per hour.

ENGI0701-002 01/01/2025

CLARK, COWLITZ, KLICKKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

POWER RQUIPMENT OPERATORS: ZONE 1

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 58.94	17.15
GROUP 1A	$ 61.10	17.15
GROUP 1B	$ 63.26	17.15
GROUP 2	$ 57.03	17.15
GROUP 3	$ 55.88	17.15
GROUP 4	$ 52.55	17.15
GROUP 5	$ 51.31	17.15
GROUP 6	$ 48.09	17.15

Zone Differential (add to Zone 1 rates):
Zone 2 - $3.00
Zone 3 - $6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or porjects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens ""Blast Zone"" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1

Concrete Batch Plan and or Wet mix three (3) units or more; Crane, Floating one hundred and fifty (150) ton but less than two hundred and fifty (250) ton; Crane, two hundred (200) ton through two hundred ninety nine (299) ton with two hundred foot (200') boom or less (including jib, inserts and/or attachments); Crane, ninety (90) ton through one hundred ninety nine (199) ton with over two hundred (200') boom Including jib, inserts and/or attachments); Crane, Tower Crane with one hundred seventy five foot (175') tower or less and with less than two hundred foot (200') jib; Crane, Whirley ninety (90) ton and over; Helicopter when used in erecting work

Group 1A

Crane, floating two hundred fifty (250) ton and over; Crane, two hundred (200) ton through two hundred ninety nine (299) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Crane, three hundred (300) ton through three hundred ninety nine (399) ton; Crane, Tower Crane with over one hundred seventy five foot (175') tower or over two hundred foot (200') jib; Crane, tower Crane on rail system or 2nd tower or more in work radius

Group 1B

Crane, three hundred (300) ton through three hundred ninety nine (399) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Floating crane, three hundred fifty (350) ton and over; Crane, four hundred (400) ton and over

Group 2

Asphalt Plant (any type); Asphalt Roto-Mill, pavement profiler eight foot (8') lateral cut and over; Auto Grader or ""Trimmer""; Blade, Robotic; Bulldozer, Robotic Equipment

(any type); Bulldozer, over one hundred twenty thousand (120,000) lbs. and above; Concrete Batch Plant and/or Wet Mix one (1) and two (2) drum; Concrete Diamond Head Profiler; Canal Trimmer; Concrete, Automatic Slip Form Paver (Assistant to the Operator required); Crane, Boom Truck fifty (50) ton and with over one hundred fifty foot (150') boom and over; Crane, Floating (derrick barge) thirty (30) ton but less than one hundred fifty (150) ton; Crane, Cableway twenty-five (25) ton and over; Crane, Floating Clamshell three (3) cu. Yds. And over; Crane, ninety (90) ton through one hundred ninety nine (199) ton up to and including two hundred foot (200') of boom (including jib inserts and/or attachments); Crane, fifty (50) ton through eighty nine (89) ton with over one hundred fifty foot (150') boom (including jib inserts and/or attachments); Crane, Whirley under ninety (90) ton; Crusher Plant; Excavator over one hundred thirty thousand (130,000) lbs.; Loader one hundred twenty thousand (120,000) lbs. and above; Remote Controlled Earth Moving Equipment; Shovel, Dragline, Clamshell, five (5) cu. Yds. And over; Underwater Equipment remote or otherwise, when used in construction work; Wheel Excavator any size

Group 3

Bulldozer, over seventy thousand (70,000) lbs. up to and including one hundred twenty thousand (120,000) lbs.; Crane, Boom Truck fifty (50) ton and over with less than one hundred fifty foot (150') boom; Crane, fifty (50) ton through eighty nine (89) ton with one hundred fifty foot (150') boom or less (including jib inserts and/or attachments); Crane, Shovel, Dragline or Clamshell three (3) cu. yds. but less than five (5) cu. Yds.; Excavator over eighty thousand (80,000) lbs. through one hundred thirty thousand (130,000) lbs.; Loader sixty thousand (60,000) lbs. and less than one hundred twenty thousand (120,000) lbs.

Group 4

Asphalt, Screed; Asphalt Paver; Asphalt Roto-Mill, pavement profiler, under eight foot (8') lateral cut; Asphalt, Material Transfer Vehicle Operator; Back Filling Machine; Backhoe, Robotic, track and wheel type up to and including twenty thousand (20,000) lbs. with any attachments; Blade (any type); Boatman; Boring Machine; Bulldozer over twenty thousand (20,000) lbs. and more than one hundred (100) horse up to seventy thousand (70,000) lbs.; Cable-Plow (any type); Cableway up to twenty five (25) ton; Cat Drill (John Henry); Chippers; Compactor, multi-engine; Compactor, Robotic; Compactor with blade self-propelled; Concrete, Breaker; Concrete, Grout Plant; Concrete, Mixer Mobile; Concrete, Paving Road Mixer; Concrete, Reinforced Tank Banding Machine; Crane, Boom Truck twenty (20) ton and under fifty (50) ton; Crane, Bridge Locomotive, Gantry and Overhead; Crane, Carry Deck; Crane, Chicago Boom and similar types; Crane, Derrick Operator, under one hundred

(100) ton; Crane, Floating Clamshell, Dragline, etc. Operator, under three (3) cu. yds. Or less than thirty (30) ton; Crane, under fifty (50) ton; Crane, Quick Tower under one hundred foot (100') in height and less than one hundred fifty foot (150') jib (on rail included); Diesel-Electric Engineer (Plant or Floating); Directional Drill over twenty thousand (20,000) lbs. pullback; Drill Cat Operator; Drill Doctor and/or Bit Grinder; Driller, Percussion, Diamond, Core, Cable, Rotary and similar type; Excavator Operator over twenty thousand (20,000) lbs. through eighty thousand (80,000) lbs.; Generator Operator; Grade-all; Guardrail Machines, i.e. punch, auger, etc.; Hammer Operator (Piledriver); Hoist, stiff leg, guy derrick or similar type, fifty (50) ton and over; Hoist, two (2) drums or more; Hydro Axe (loader mounted or similar type); Jack Operator, Elevating Barges, Barge Operator, self-unloading; Loader Operator, front end and overhead, twenty five thousand (25,000) lbs. and less than sixty thousand (60,000) lbs.; Log Skidders; Piledriver Operator (not crane type); Pipe, Bending, Cleaning, Doping and Wrapping Machines; Rail, Ballast Tamper Multi-Purpose; Rubber-tired Dozers and Pushers; Scraper, all types; Side-Boom; Skip Loader, Drag Box; Strump Grinder (loader mounted or similar type); Surface Heater and Planer; Tractor, rubber-tired, over fifty (50) HP Flywheel; Trenching Machine three foot (3') depth and deeper; Tub Grinder (used for wood debris); Tunnel Boring Machine Mechanic; Tunnel, Mucking Machine; Ultra High Pressure Water Jet Cutting Tool System Operator; Vacuum Blasting Machine Operator; Water pulls, Water wagons

Group 5

Asphalt, Extrusion Machine; Asphalt, Roller (any asphalt mix); Asphalt, Roto-Mill pavement profiler ground man; Bulldozer, twenty thousand (20,000) lbs. or less, or one hundred (100) horse or less; Cement Pump; Chip Spreading Machine; Churn Drill and Earth Boring Machine; Compactor, self-propelled without blade; Compressor, (any power) one thousand two hundred fifty (1,250) cu. ft. and over, total capacity; Concrete, Batch Plant Quality control; Concrete, Combination Mixer and compressor operator, gunite work; Concrete, Curb Machine, Mechanical Berm, Curb and/or Curb and Gutter; Concrete, Finishing Machine; Concrete, Grouting Machine; Concrete, Internal Full Slab Vibrator Operator; Concrete, Joint Machine; Concrete, Mixer single drum, any capacity; Concrete, Paving Machine eight foot (8') or less; Concrete, Planer; Concrete, Pump; Concrete, Pump Truck; Concrete, Pumpcrete Operator (any type); Concrete, Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Conveyored Material Hauler; Crane, Boom Truck under twenty (20) tons; Crane, Boom Type lifting device, five (5) ton capacity or less; Drill, Directional type less than twenty thousand (20,000) lbs. pullback; Fork Lift, over ten (10) ton or Robotic; Helicopter Hoist; Hoist Operator, single drum; Hydraulic Backhoe track type up to and including twenty thousand (20,000) lbs.; Hydraulic

Backhoe wheel type (any make); Laser Screed; Loaders, rubber-tired type, less than twenty five thousand (25,000) lbs.; Pavement Grinder and/or Grooving Machine (riding type); Pipe, cast in place Pipe Laying Machine; Pulva-Mixer or similar types; Pump Operator, more than five (5) pumps (any size); Rail, Ballast Compactor, Regulator, or Tamper machines; Service Oiler (Greaser); Sweeper Self-Propelled; Tractor, Rubber-Tired, fifty (50) HP flywheel and under; Trenching Machine Operator, maximum digging capacity three foot (3') depth; Tunnel, Locomotive, Dinkey; Tunnel, Power Jumbo setting slip forms, etc.

Group 6

Asphalt, Pugmill (any type); Asphalt, Raker; Asphalt, Truck Mounted Asphalt Spreader, with Screed; Auger Oiler; Boatman; Bobcat, skid steed (less than one (1) yard); Broom, self-propelled; Compressor Operator (any power) under 1,250 cu. ft. total capacity; Concrete Curing Machine (riding type); Concrete Saw; Conveyor Operator or Assistant; Crane, Tugger; Crusher Feederman; Crusher Oiler; Deckhand; Drill, Directional Locator; Fork Lift; Grade Checker; Guardrail Punch Oiler; Hydrographic Seeder Machine, straw, pulp or seed; Hydrostatic Pump Operator; Mixer Box (CTB, dry batch, etc.); Oiler; Plant Oiler; Pump (any power); Rail, Brakeman, Switchman, Motorman; Rail, Tamping Machine, mechanical, self-propelled; Rigger; Roller grading (not asphalt); Truck, Crane Oiler-Driver

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IRON0014-005 07/07/2025

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE, STEVENS, WALLA WALLA AND WHITMAN COUNTIES

	Rates	Fringes
IRONWORKER	$ 43.40	32.77

IRON0029-002 07/07/2025

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKAIKUM COUNTIES

	Rates	Fringes
IRONWORKER	$ 48.31	34.52

IRON0086-002 07/07/2025

YAKIMA, KITTITAS AND CHELAN COUNTIES

	Rates	Fringes
IRONWORKER	$ 43.40	32.77

IRON0086-004 07/07/2025

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

	Rates	Fringes
IRONWORKER	$ 57.94	34.52

*** LABO0238-004 06/01/2025**

A-1 AREA: ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, WALLA WALLA, AND WHITMAN COUNTIES
A-2 AREA: ADAMS,COLUMBIA,DOUGLAS (East of 120th Meridian), FERRY, GRANT, OKANOGAN, PEND OREILLE, AND STEVENS COUNTIES

	Rates	Fringes
LABORER (A-1)		
GROUP 1	**$ 34.03**	**16.90**
GROUP 2	**$ 37.13**	**16.90**
GROUP 3	**$ 37.46**	**16.90**
GROUP 4	**$ 37.80**	**16.90**
GROUP 5	**$ 38.14**	**16.90**
LABORER (A-2)		
GROUP 1	**$ 37.03**	**16.90**
GROUP 2	**$ 40.13**	**16.90**
GROUP 3	**$ 40.46**	**16.90**
GROUP 4	**$ 40.80**	**16.90**
GROUP 5	**$ 41.14**	**16.90**

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer; Scaleman; Traffic Control Maintenance Laborer (to include erection and maintenance of barricades, signs and relief of flagperson); Window Washer/Cleaner (detail cleanup, such as, but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezcrete or similar machine,6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers);

Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class ""A"" (to include all bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

GROUP 3: Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, Paving; Grade Checker using level; Hazardous Waste Worker, Level C (uses a chemical ""splash suit"" and air purifying respirator); Jackhammer Operator; Miner, Class ""B"" (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi- plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow (power driven)

GROUP 4: Air and Hydraulic Track Drill; Aspahlt Raker;Brush Machine (to include horizontal construction joint cleanup brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when laborers working on free standing concrete stacks for smoke or fume control above 40 feet high); Gunite (to include operation of machine and nozzle); Hazardous Waste Worker, Level B (uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Laser Beam Operator (to include grade checker and elevation control); Miner, Class C (to include miner, nozzleman for concrete, laser beam operator and rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power propelled, sandblast nozzle); Pavement Breaker (90 lbs. and over); Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer); Pipewrapper; Plasterer Tender; Vibrators (all)

GROUP 5 - Drills with Dual Masts; Hazardous Waste Worker, Level A (utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line); Miner Class ""D"", (to include raise and shaft miner, laser beam operator on riases and shafts)

*** LABO0238-006 06/01/2025**

COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA, WHITMAN

	Rates	**Fringes**
Hod Carrier	**$ 38.05**	**16.75**

LABO0242-003 06/01/2025

KING COUNTY

	Rates	Fringes
LABORER		
GROUP 1	$ 36.07	15.79
GROUP 2A	$ 40.88	16.72
GROUP 3	$ 50.38	16.96
GROUP 4	$ 51.52	16.99
GROUP 5	$ 52.31	17.01
GROUP 6	$ 53.99	17.05

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2A: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

Group 6: Miner

LABO0252-010 06/01/2025

CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
LABORER		
GROUP 1	$ 36.07	15.79
GROUP 2	$ 40.88	16.72
GROUP 3	$ 50.38	16.96
GROUP 4	$ 51.52	16.99
GROUP 5	$ 52.31	17.01

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Grade Checker and Transit Person; High Scaler; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0292-008 06/01/2025

ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES

	Rates	Fringes
LABORER		
GROUP 1	$ 36.07	15.79
GROUP 2	$ 40.88	16.72
GROUP 3	$ 50.38	16.96
GROUP 4	$ 51.52	16.99
GROUP 5	$ 52.31	17.01

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0335-022 06/01/2025

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1	$ 32.67	15.60
GROUP 2	$ 40.56	15.60
GROUP 3	$ 44.06	15.60
GROUP 4	$ 44.90	15.60
GROUP 5	$ 45.54	15.60
GROUP 6	$ 46.08	15.60

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping, and/or Planting Laborers

GROUP 2: Fence Builders and Traffic Flaggers

GROUP 3: Asphalt Plant Laborers; Asphalt Spreaders; Batch Weighman; Broomers; Brush Burners and Cutters; Car and Truck Loaders; Carpenter Tender; Change-House Man or Dry Shack Man; Choker Setter; Clean-up Laborers; Curing, Concrete; Demolition, Wrecking and Moving Laborers; Dumpers, road oiling crew; Dumpmen (for grading crew);

Elevator Feeders; Median Rail Reference Post, Guide Post, Right of Way Marker; Fine Graders; Fire Watch; Form Strippers (not swinging stages); General Laborers; Hazardous Waste Worker; Hod Carrier; Leverman or Aggregate Spreader (Flaherty and similar types); Loading Spotters; Material Yard Man (including electrical); Pittsburgh Chipper Operator or Similar Types; Railroad Track Laborers; Ribbon Setters (including steel forms); Rip Rap Man (hand placed); Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers; Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring; Timber Faller and Bucker (hand labor); Toolroom Man (at job site); Tunnel Bullgang (above ground); Weight-Man- Crusher (aggregate when used)

GROUP 4: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunite Nozzleman Tender; Gunite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 5: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunite Nozzleman; High Scalers, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Pwdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 6: Asphalt Raker; Concrete Saw Operator (walls); Concrete Nozzelman; Grade Checker; Pipelayer; Laser Beam (pipelaying)-applicable when employee assigned to move, set up, align; Laser Beam; Tunnel Miners; Motorman-Dinky Locomotive-Tunnel; Powderman-Tunnel; Shield Operator-Tunnel

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LABO0348-003 06/01/2025

CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES

	Rates	Fringes
LABORER		
GROUP 1	$ 31.19	16.48
GROUP 2	$ 35.34	16.59
GROUP 3	$ 38.40	16.66
GROUP 4	$ 39.26	16.68
GROUP 5	$ 39.89	16.70

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer;

Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

PAIN0005-002 07/01/2025

STATEWIDE EXCEPT CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
STRIPERS	$ 41.80	20.85

PAIN0010-012 07/01/2025

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
PAINTER (Brush, Roller, Spray & Sandblasting)	$ 39.94	16.68

PAIN0010-013 07/01/2025

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA and WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
HIGHWAY & PARKING LOT STRIPER	$ 41.19	17.09

PAIN0300-007 07/01/2025

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

	Rates	Fringes
PAINTER	$ 41.24	14.70

PAIN0427-005 07/01/2025

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE); CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES

	Rates	Fringes
PAINTER (Application of Cold Tar Products, Epoxies, Polyurethanes, Acids, Radiation Resistant Material, Water, Sandblasting, Over 30'/Swing Stage Work, Brush, Roller, Striping, Steam-cleaning, and Spray)	$ 36.26	17.01

PLAS0072-004 06/01/2025

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 40.89	18.64

Zone Differential (Add to Zone 1 rate): Zone 2 - $3.00

BASE POINTS: Spokane, Pasco, Lewiston; Wenatchee
Zone 1: 0 - 45 radius miles from the main post office
Zone 2: Over 45 radius miles from the main post office

PLAS0528-001 06/01/2024

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

	Rates	Fringes
CEMENT MASON		
CEMENT MASON	$ 54.16	21.27
COMPOSITION, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE	$ 54.66	21.27
TROWELING MACHINE OPERATOR ON COMPOSITION	$ 54.66	21.27

PLAS0555-002 06/01/2025

CLARK, KLICKITAT AND SKAMANIA COUNTIES

ZONE 1:

	Rates	Fringes
CEMENT MASON		
CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD	$ 48.05	20.31
CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD	$ 47.09	20.31
CEMENT MASONS	$ 46.13	20.31
COMPOSITION WORKERS AND POWER MACHINERY OPERATORS	$ 47.09	20.31

Zone Differential (Add To Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE DALLES, VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall
ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
ZONE 5: More than 80 miles from the respective city hall

TEAM0037-002 06/01/2024

CLARK, COWLITZ, KLICKITAT, PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE 1		
GROUP 1	$ 33.09	17.63
GROUP 2	$ 33.24	17.63
GROUP 3	$ 33.40	17.63
GROUP 4	$ 33.72	17.63
GROUP 5	$ 33.97	17.63
GROUP 6	$ 34.18	17.63
GROUP 7	$ 34.42	17.63

Zone Differential (Add to Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lifrt truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts

(all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman, Wash Rack, Steam Cleaner or combinations; Team Driver; Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane; Challenger; Dumpsters or similar equipment all sizes; Dump Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer or doubles transporting equipment or wet or dry materials; Lumber Carrier, Driver-Straddle Carrier (used in loading, unloading and transporting of materials on job site); Oil Distributor Driver or Leverman; Transit mix and wet or dry mix trcuks: over 5 cu. yds. and including 7 cu. yds.; Vacuum Trucks; Water truck/Wagons (rated capacity) over 3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 10 cu. yds. and including 30 cu. yds. includes Articulated Dump Trucks; Self-Propelled Street Sweeper; Transit mix and wet or dry mix truck: over 7 cu yds. and including 11 cu yds.; Truck Mechanic-Welder-Body Repairman; Utility and Clean-up Truck; Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom cumps, including Semi-Trucks and Trains or combinations thereof: over 30 cu. yds. and including 50 cu. yds. includes Articulated Dump Trucks; Fire Guard; Transit Mix and Wet or Dry Mix Trucks, over 11 cu. yds. and including 15 cu. yds.; Water Wagon (rated capacity) over 10,000 gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 50 cu. yds. and including 60 cu. yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch concrete Mix Trucks; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains of combinations thereof: over 60 cu. yds. and including 80 cu. yds., and includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

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* TEAM0174-001 06/01/2025

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE A:		
GROUP 1:	$ 55.43	27.52
GROUP 2:	$ 54.59	27.52
GROUP 3:	$ 51.78	27.52
GROUP 4:	$ 46.81	27.52
GROUP 5:	$ 54.98	27.52

ZONE B (25-45 miles from center of listed cities*): Add $.70 per hour to Zone A rates.
ZONE C (over 45 miles from centr of listed cities*): Add $1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM	CENTRALIA	RAYMOND	OLYMPIA
EVERETT	SHELTON	ANACORTES	BELLEVUE
SEATTLE	PORT ANGELES	MT. VERNON	KENT
TACOMA	PORT TOWNSEND	ABERDEEN	BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - ""A-frame or Hydralift"" trucks and Boom trucks or similar equipment when ""A"" frame or ""Hydralift"" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series, Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards $.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra,

Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired)(when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by $2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:
LEVEL C: +$.25 per hour - This level uses an air purifying respirator or additional protective clothing.
LEVEL B: +$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical ""splash suit.""
LEVEL A: +$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0690-004 06/01/2024

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
Truck drivers: (AREA 1: SPOKANE ZONE CENTER: Adams, Chelan, Douglas, Ferry, Grant, Kittitas, Lincoln, Okanogan, Pen Oreille, Spokane, Stevens, and Whitman Counties		

AREA 1: LEWISTON ZONE CENTER:
Asotin, Columbia, and
Garfield Counties

AREA 2: PASCO ZONE CENTER:
Benton, Franklin, Walla Walla
and Yakima Counties)

AREA 1:		
GROUP 1	$ 36.83	20.93
GROUP 2	$ 39.47	20.93
GROUP 3	$ 39.58	20.93
GROUP 4	$ 39.91	20.93
GROUP 5	$ 40.02	20.93
GROUP 6	$ 40.22	20.93
GROUP 7	$ 40.56	20.93
GROUP 8	$ 40.88	20.93
AREA 2:		
GROUP 1	$ 33.83	20.93
GROUP 2	$ 36.47	20.93
GROUP 3	$ 36.58	20.93
GROUP 4	$ 36.91	20.93
GROUP 5	$ 37.02	20.93
GROUP 6	$ 37.22	20.93
GROUP 7	$ 37.56	20.93
GROUP 8	$ 37.88	20.93

Zone Differential (Add to Zone 1 rate: Zone 1 + $2.00)

BASE POINTS: Spokane, Pasco, Lewiston
Zone 1: 0-45 radius miles from the main post office.
Zone 2: Outside 45 radius miles from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraullic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self- loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi- end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable oeprated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom end dump (over 40 yds. to & including 100 yds.); Truck Mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

Footnote A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in additon to the classification working in as follows:

LEVEL C-D: - $.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - $1.00 PER HOUR (Uses supplied air is conjunction with a chemical spash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

NOTE:
Trucks Pulling Equipment Trailers: shall receive $.15/hour over applicable truck rate

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the

example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination.

The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment

data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

State of Washington
Department of Labor & Industries
Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage
The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 12/15/2025

Skagit County

Trade	Job Classification	Wage	Holiday	Overtime	Note	Risk Class
Asbestos Abatement Workers	Journey Level	$67.39	5D	1H		View
Boilermakers	Journey Level	$80.89	5N	1C		View
Brick Mason	Journey Level	$76.07	7E	1N		View
Brick Mason	Pointer-Caulker-Cleaner	$76.07	7E	1N		View
Building Service Employees	Janitor	$16.66		1		View
Building Service Employees	Shampooer	$16.66		1		View
Building Service Employees	Waxer	$16.66		1		View
Building Service Employees	Window Cleaner	$16.66		1		View
Cabinet Makers (In Shop)	Journey Level	$18.85		1		View
Carpenters	Acoustical Worker	$83.21	15J	11U		View
Carpenters	Bridge Dock and Wharf Carpenter	$84.81	15J	11U	9L	View
Carpenters	Floor Layer & Floor Finisher	$83.21	15J	11U		View
Carpenters	General Carpenter	$83.21	15J	11U		View
Carpenters	Scaffold Erector	$83.21	15J	11U		View
Cement Masons	Application of all Composition Mastic	$81.87	15J	4U		View
Cement Masons	Application of all Epoxy Material	$81.36	15J	4U		View
Cement Masons	Application of all Plastic Material	$81.87	15J	4U		View
Cement Masons	Application of Sealing Compound	$81.36	15J	4U		View
Cement Masons	Application of Underlayment	$81.87	15J	4U		View
Cement Masons	Building General	$81.36	15J	4U		View
Cement Masons	Composition or Kalman Floors	$81.87	15J	4U		View
Cement Masons	Concrete Paving	$81.36	15J	4U		View
Cement Masons	Curb & Gutter Machine	$81.87	15J	4U		View
Cement Masons	Curb & Gutter, Sidewalks	$81.36	15J	4U		View

Cement Masons	Curing Concrete	$81.36	15J	4U		View
Cement Masons	Finish Colored Concrete	$81.87	15J	4U		View
Cement Masons	Floor Grinding	$81.87	15J	4U		View
Cement Masons	Floor Grinding/Polisher	$81.36	15J	4U		View
Cement Masons	Green Concrete Saw, self-powered	$81.87	15J	4U		View
Cement Masons	Grouting of all Plates	$81.36	15J	4U		View
Cement Masons	Grouting of all Tilt-up Panels	$81.36	15J	4U		View
Cement Masons	Gunite Nozzleman	$81.87	15J	4U		View
Cement Masons	Hand Powered Grinder	$81.87	15J	4U		View
Cement Masons	Journey Level	$81.36	15J	4U		View
Cement Masons	Patching Concrete	$81.36	15J	4U		View
Cement Masons	Pneumatic Power Tools	$81.87	15J	4U		View
Cement Masons	Power Chipping & Brushing	$81.87	15J	4U		View
Cement Masons	Sand Blasting Architectural Finish	$81.87	15J	4U		View
Cement Masons	Screed & Rodding Machine	$81.87	15J	4U		View
Cement Masons	Spackling or Skim Coat Concrete	$81.36	15J	4U		View
Cement Masons	Troweling Machine Operator	$81.87	15J	4U		View
Cement Masons	Troweling Machine Operator on Colored Slabs	$81.87	15J	4U		View
Cement Masons	Tunnel Workers	$81.87	15J	4U		View
Divers & Tenders	Bell/Vehicle/Submersible Operator (not under pressure)	$144.72	15J	11T	9I	View
Divers & Tenders	Dive Supervisor	$146.22	15J	11T	9I	View
Divers & Tenders	Diver	$144.72	15J	11T	9I	View
Divers & Tenders	Diver Tender	$91.05	15J	11T	9I	View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	$114.73	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 30.01-44.00 PSI	$124.28	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	$133.82	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	$143.37	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	$152.91	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	$162.46	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	$172.00	15J	11U		View

Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	$181.55	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	$191.09	15J	11U		View
Divers & Tenders	Lead Diver (Dive Master)	$105.51	15J	11T	9I	View
Divers & Tenders	Manifold Operator (Life Support Technician)	$96.05	15J	11U	9I	View
Divers & Tenders	Remote Operated Vehicle Operator/Technician	$91.05	15J	11T	9I	View
Divers & Tenders	Remote Operated Vehicle Operator/Technician	$91.05	15J	11U	9I	View
Divers & Tenders	Remote Operated Vehicle Tender	$84.75	15J	11T	9I	View
Divers & Tenders	Stand-by Diver	$100.51	15J	11T	9I	View
Dredge Workers	Assistant Engineer	$89.47	5D	3F		View
Dredge Workers	Assistant Mate (Deckhand)	$88.78	5D	3F		View
Dredge Workers	Boatmen	$89.47	5D	3F		View
Dredge Workers	Engineer Welder	$91.20	5D	3F		View
Dredge Workers	Leverman, Hydraulic	$93.03	5D	3F		View
Dredge Workers	Mates	$89.47	5D	3F		View
Dredge Workers	Oiler	$88.78	5D	3F		View
Drywall Applicator	Journey Level	$81.71	15O	11S		View
Drywall Tapers	Journey Level	$81.71	15O	11S		View
Electrical Fixture Maintenance Workers	Journey Level	$21.48		1		View
Electricians - Inside	Cable Splicer	$100.52	7H	1E		View
Electricians - Inside	Construction Stock Person	$48.08	7H	1D		View
Electricians - Inside	Journey Level	$94.06	7H	1E		View
Electricians - Motor Shop	Craftsman	$16.66		1		View
Electricians - Motor Shop	Journey Level	$16.66		1		View
Electricians - Powerline Construction	Cable Splicer	$102.42	5A	4D		View
Electricians - Powerline Construction	Certified Line Welder	$93.99	5A	4D		View
Electricians - Powerline Construction	Groundperson	$59.30	5A	4D		View
Electricians - Powerline Construction	Heavy Line Equipment Operator	$93.99	5A	4D		View
Electricians - Powerline Construction	Journey Level Lineperson	$93.99	5A	4D		View
Electricians - Powerline Construction	Line Equipment Operator	$80.96	5A	4D		View
Electricians - Powerline Construction	Meter Installer	$59.30	5A	4D	8W	View
Electricians - Powerline Construction	Pole Sprayer	$93.99	5A	4D		View

Electricians - Powerline Construction	Powderperson	$69.84	5A	4D		View
Electronic Technicians	Electronic Technicians Journey Level	$62.05	5B	1B		View
Elevator Constructors	Mechanic	$115.14	7D	4A		View
Elevator Constructors	Mechanic In Charge	$124.53	7D	4A		View
Fabricated Precast Concrete Products	Journey Level	$16.66		1		View
Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	$16.66		1		View
Fence Erectors	Fence Erector	$57.66	15J	11P	8Y	View
Fence Erectors	Fence Laborer	$57.66	15J	11P	8Y	View
Flaggers	Journey Level	$57.66	15J	11P	8Y	View
Glaziers	Journey Level	$85.16	7L	1Y		View
Heat & Frost Insulators And Asbestos Workers	Journey Level	$96.42	15H	11C		View
Heating Equipment Mechanics	Mechanic	$101.96	7F	1E		View
Hod Carriers & Mason Tenders	Journey Level	$71.09	15J	11P	8Y	View
Industrial Power Vacuum Cleaner	Journey Level	$16.66		1		View
Inland Boatmen	Boat Operator	$71.28	5B	1K		View
Inland Boatmen	Cook	$69.70	5B	1K		View
Inland Boatmen	Deckhand	$70.00	5B	1K		View
Inland Boatmen	Deckhand Engineer	$69.55	5B	1K		View
Inland Boatmen	Launch Operator	$71.23	5B	1K		View
Inland Boatmen	Mate	$89.12	5B	1K		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator	$54.56	15M	11O		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Foamer Operator	$54.56	15M	11O		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	$54.56	15M	11O		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	$52.40	15M	11O		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	$45.97	15M	11O		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	TV Truck Operator	$49.20	15M	11O		View
Insulation Applicators	Journey Level	$83.21	15J	11U		View
Ironworkers	Journeyman	$92.82	15K	11N		View
Laborers	Air, Gas Or Electric Vibrating Screed	$67.39	15J	11P	8Y	View
Laborers	Airtrac Drill Operator	$69.37	15J	11P	8Y	View
Laborers	Ballast Regular Machine	$67.39	15J	11P	8Y	View

Laborers	Batch Weighman	$57.66	15J	11P	8Y	View
Laborers	Brick Pavers	$67.39	15J	11P	8Y	View
Laborers	Brush Cutter	$67.39	15J	11P	8Y	View
Laborers	Brush Hog Feeder	$67.39	15J	11P	8Y	View
Laborers	Burner	$67.39	15J	11P	8Y	View
Laborers	Caisson Worker	$69.37	15J	11P	8Y	View
Laborers	Carpenter Tender	$67.39	15J	11P	8Y	View
Laborers	Cement Dumper-paving	$69.37	15J	11P	8Y	View
Laborers	Cement Finisher Tender	$67.39	15J	11P	8Y	View
Laborers	Change House Or Dry Shack	$67.39	15J	11P	8Y	View
Laborers	Chipping Gun (30 Lbs. And Over)	$68.56	15J	11P	8Y	View
Laborers	Chipping Gun (Under 30 Lbs.)	$67.39	15J	11P	8Y	View
Laborers	Choker Setter	$67.39	15J	11P	8Y	View
Laborers	Chuck Tender	$67.39	15J	11P	8Y	View
Laborers	Clary Power Spreader	$68.56	15J	11P	8Y	View
Laborers	Clean-up Laborer	$67.39	15J	11P	8Y	View
Laborers	Concrete Dumper/Chute Operator	$69.37	15J	11P	8Y	View
Laborers	Concrete Form Stripper	$67.39	15J	11P	8Y	View
Laborers	Concrete Placement Crew	$69.37	15J	11P	8Y	View
Laborers	Concrete Saw Operator/Core Driller	$68.56	15J	11P	8Y	View
Laborers	Crusher Feeder	$57.66	15J	11P	8Y	View
Laborers	Curing Laborer	$67.39	15J	11P	8Y	View
Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	$67.39	15J	11P	8Y	View
Laborers	Ditch Digger	$67.39	15J	11P	8Y	View
Laborers	Diver	$69.37	15J	11P	8Y	View
Laborers	Drill Operator (Hydraulic, Diamond)	$68.56	15J	11P	8Y	View
Laborers	Dry Stack Walls	$67.39	15J	11P	8Y	View
Laborers	Dump Person	$67.39	15J	11P	8Y	View
Laborers	Epoxy Technician	$67.39	15J	11P	8Y	View
Laborers	Erosion Control Worker	$67.39	15J	11P	8Y	View
Laborers	Faller & Bucker Chain Saw	$68.56	15J	11P	8Y	View
Laborers	Fine Graders	$67.39	15J	11P	8Y	View
Laborers	Firewatch	$57.66	15J	11P	8Y	View

Laborers	Form Setter	$69.37	15J	11P	8Y	View
Laborers	Gabian Basket Builders	$67.39	15J	11P	8Y	View
Laborers	General Laborer	$67.39	15J	11P	8Y	View
Laborers	Grade Checker & Transit Person	$71.09	15J	11P	8Y	View
Laborers	Grinders	$67.39	15J	11P	8Y	View
Laborers	Grout Machine Tender	$67.39	15J	11P	8Y	View
Laborers	Groutmen (Pressure) Including Post Tension Beams	$68.56	15J	11P	8Y	View
Laborers	Guardrail Erector	$67.39	15J	11P	8Y	View
Laborers	Hazardous Waste Worker (Level A)	$69.37	15J	11P	8Y	View
Laborers	Hazardous Waste Worker (Level B)	$68.56	15J	11P	8Y	View
Laborers	Hazardous Waste Worker (Level C)	$67.39	15J	11P	8Y	View
Laborers	High Scaler	$69.37	15J	11P	8Y	View
Laborers	Jackhammer	$68.56	15J	11P	8Y	View
Laborers	Laserbeam Operator	$68.56	15J	11P	8Y	View
Laborers	Maintenance Person	$67.39	15J	11P	8Y	View
Laborers	Manhole Builder-Mudman	$68.56	15J	11P	8Y	View
Laborers	Material Yard Person	$67.39	15J	11P	8Y	View
Laborers	Mold Abatement Worker	$67.39	15J	11P	8Y	View
Laborers	Motorman-Dinky Locomotive	$71.19	15J	11P	8Y	View
Laborers	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	$71.09	15J	11P	8Y	View
Laborers	Pavement Breaker	$68.56	15J	11P	8Y	View
Laborers	Pilot Car	$57.66	15J	11P	8Y	View
Laborers	Pipe Layer (Lead)	$71.09	15J	11P	8Y	View
Laborers	Pipe Layer/Tailor	$68.56	15J	11P	8Y	View
Laborers	Pipe Pot Tender	$68.56	15J	11P	8Y	View
Laborers	Pipe Reliner	$68.56	15J	11P	8Y	View
Laborers	Pipe Wrapper	$68.56	15J	11P	8Y	View
Laborers	Pot Tender	$67.39	15J	11P	8Y	View
Laborers	Powderman	$69.37	15J	11P	8Y	View
Laborers	Powderman's Helper	$67.39	15J	11P	8Y	View
Laborers	Power Jacks	$68.56	15J	11P	8Y	View

Laborers	Power Washer	$67.39	15J	11P	8Y	View
Laborers	Railroad Spike Puller - Power	$68.56	15J	11P	8Y	View
Laborers	Raker - Asphalt	$71.09	15J	11P	8Y	View
Laborers	Re-timberman	$69.37	15J	11P	8Y	View
Laborers	Remote Equipment Operator	$68.56	15J	11P	8Y	View
Laborers	Rigger/Signal Person	$68.56	15J	11P	8Y	View
Laborers	Rip Rap Person	$67.39	15J	11P	8Y	View
Laborers	Rivet Buster	$68.56	15J	11P	8Y	View
Laborers	Rodder	$69.37	15J	11P	8Y	View
Laborers	Scaffold Erector	$67.39	15J	11P	8Y	View
Laborers	Scale Person	$67.39	15J	11P	8Y	View
Laborers	Sloper (Over 20")	$68.56	15J	11P	8Y	View
Laborers	Sloper Sprayer	$67.39	15J	11P	8Y	View
Laborers	Spreader (Concrete)	$69.37	15J	11P	8Y	View
Laborers	Stake Hopper	$67.39	15J	11P	8Y	View
Laborers	Stock Piler	$67.39	15J	11P	8Y	View
Laborers	Swinging Stage/Boatswain Chair	$57.66	15J	11P	8Y	View
Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	$68.56	15J	11P	8Y	View
Laborers	Tamper (Multiple & Self-propelled)	$68.56	15J	11P	8Y	View
Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	$68.56	15J	11P	8Y	View
Laborers	Toolroom Person (at Jobsite)	$67.39	15J	11P	8Y	View
Laborers	Topper	$67.39	15J	11P	8Y	View
Laborers	Track Laborer	$67.39	15J	11P	8Y	View
Laborers	Track Liner (Power)	$68.56	15J	11P	8Y	View
Laborers	Traffic Control Laborer	$61.41	15J	11P	9C	View
Laborers	Traffic Control Supervisor	$64.86	15J	11P	9C	View
Laborers	Truck Spotter	$67.39	15J	11P	8Y	View
Laborers	Tugger Operator	$68.56	15J	11P	8Y	View
Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	$225.32	15J	11P	9B	View
Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	$230.35	15J	11P	9B	View
Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	$234.03	15J	11P	9B	View

Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	$239.73	15J	11P	9B	View
Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	$241.85	15J	11P	9B	View
Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	$246.95	15J	11P	9B	View
Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	$248.85	15J	11P	9B	View
Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	$250.85	15J	11P	9B	View
Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	$252.85	15J	11P	9B	View
Laborers	Tunnel Work-Guage and Lock Tender	$71.19	15J	11P	8Y	View
Laborers	Tunnel Work-Miner	$71.19	15J	11P	8Y	View
Laborers	Vibrator	$69.37	15J	11P	8Y	View
Laborers	Vinyl Seamer	$67.39	15J	11P	8Y	View
Laborers	Watchman	$52.73	15J	11P	8Y	View
Laborers	Welder	$68.56	15J	11P	8Y	View
Laborers	Well Point Laborer	$68.56	15J	11P	8Y	View
Laborers	Window Washer/Cleaner	$52.73	15J	11P	8Y	View
Laborers - Underground Sewer & Water	General Laborer & Topman	$67.39	15J	11P	8Y	View
Laborers - Underground Sewer & Water	Pipe Layer	$68.56	15J	11P	8Y	View
Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	$52.73	15J	11P	8Y	View
Landscape Construction	Landscape Operator	$89.10	15J	11G	8X	View
Landscape Maintenance	Groundskeeper	$16.66		1		View
Lathers	Journey Level	$81.71	15O	11S		View
Marble Setters	Journey Level	$76.07	7E	1N		View
Metal Fabrication (In Shop)	Fitter	$16.66		1		View
Metal Fabrication (In Shop)	Laborer	$16.66		1		View
Metal Fabrication (In Shop)	Machine Operator	$16.66		1		View
Metal Fabrication (In Shop)	Painter	$16.66		1		View
Metal Fabrication (In Shop)	Welder	$16.66		1		View
Millwright	Journey Level	$80.28	15J	4C		View
Modular Buildings	Journey Level	$16.66		1		View
Painters	Journey Level	$56.09	6Z	11J		View
Pile Driver	Crew Tender	$80.50	15J	11U	9L	View

Pile Driver	Journey Level	$84.81	15J	11U		View
Plasterers	Journey Level	$78.60	7Q	1R		View
Plasterers	Nozzleman	$82.70	7Q	1R		View
Playground & Park Equipment Installers	Journey Level	$16.66		1		View
Plumbers & Pipefitters	Journey Level	$95.37	5A	1G		View
Power Equipment Operators	Asphalt Plant Operators	$90.58	15J	11G	8X	View
Power Equipment Operators	Assistant Engineer	$85.17	15J	11G	8X	View
Power Equipment Operators	Barrier Machine (zipper)	$89.78	15J	11G	8X	View
Power Equipment Operators	Batch Plant Operator: concrete	$89.78	15J	11G	8X	View
Power Equipment Operators	Boat Operator	$91.73	7A	11H	8X	View
Power Equipment Operators	Bobcat	$85.17	15J	11G	8X	View
Power Equipment Operators	Brokk - Remote Demolition Equipment	$85.17	15J	11G	8X	View
Power Equipment Operators	Brooms	$85.17	15J	11G	8X	View
Power Equipment Operators	Bump Cutter	$89.78	15J	11G	8X	View
Power Equipment Operators	Cableways	$90.58	15J	11G	8X	View
Power Equipment Operators	Chipper	$89.78	15J	11G	8X	View
Power Equipment Operators	Compressor	$85.17	15J	11G	8X	View
Power Equipment Operators	Concrete Finish Machine - Laser Screed	$85.17	15J	11G	8X	View
Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	$89.10	15J	11G	8X	View
Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	$90.58	15J	11G	8X	View
Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$89.78	15J	11G	8X	View
Power Equipment Operators	Conveyors	$89.10	15J	11G	8X	View
Power Equipment Operators	Cranes Friction: 200 tons and over	$94.85	7A	11H	8X	View
Power Equipment Operators	Cranes, A-frame: 10 tons and under	$86.60	7A	11H	8X	View
Power Equipment Operators	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	$92.98	7A	11H	8X	View
Power Equipment Operators	Cranes: 20 tons through 44 tons with attachments	$91.25	7A	11H	8X	View
Power Equipment Operators	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	$93.95	7A	11H	8X	View
Power Equipment Operators	Cranes: 300 tons and over or 300' of boom including jib with attachments	$94.85	7A	11H	8X	View
Power Equipment Operators	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with	$91.73	7A	11H	8X	View

	attachments)					
Power Equipment Operators	Cranes: Friction cranes through 199 tons	$93.95	7A	11H	8X	View
Power Equipment Operators	Cranes: through 19 tons with attachments, a-frame over 10 tons	$90.55	7A	11H	8X	View
Power Equipment Operators	Crusher	$89.78	15J	11G	8X	View
Power Equipment Operators	Deck Engineer/Deck Winches (power)	$89.78	15J	11G	8X	View
Power Equipment Operators	Derricks, On Building Work	$91.73	7A	11H	8X	View
Power Equipment Operators	Dozers D-9 & Under	$89.10	15J	11G	8X	View
Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	$89.10	15J	11G	8X	View
Power Equipment Operators	Drilling Machine	$90.60	15J	11G	8X	View
Power Equipment Operators	Elevator and man-lift: permanent and shaft type	$85.17	15J	11G	8X	View
Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$89.78	15J	11G	8X	View
Power Equipment Operators	Forklift: 3000 lbs and over with attachments	$89.10	15J	11G	8X	View
Power Equipment Operators	Forklifts: under 3000 lbs. with attachments	$85.17	15J	11G	8X	View
Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$89.78	15J	11G	8X	View
Power Equipment Operators	Gradechecker/Stakeman	$85.17	15J	11G	8X	View
Power Equipment Operators	Guardrail Punch	$89.78	15J	11G	8X	View
Power Equipment Operators	Hard Tail End Dump Articulating Off-Road Equipment 45 Yards. & Over	$90.58	15J	11G	8X	View
Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$89.78	15J	11G	8X	View
Power Equipment Operators	Horizontal/Directional Drill Locator	$89.10	15J	11G	8X	View
Power Equipment Operators	Horizontal/Directional Drill Operator	$89.78	15J	11G	8X	View
Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	$90.55	7A	11H	8X	View
Power Equipment Operators	Hydralifts/boom trucks: 10 tons and under	$86.60	7A	11H	8X	View
Power Equipment Operators	Leverman	$92.45	15J	11G	8X	View
Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$90.58	15J	11G	8X	View
Power Equipment Operators	Loaders, Overhead Under 6 Yards	$89.78	15J	11G	8X	View
Power Equipment Operators	Loaders, Plant Feed	$89.78	15J	11G	8X	View
Power Equipment Operators	Loaders: Elevating Type Belt	$89.10	15J	11G	8X	View
Power Equipment Operators	Locomotives, All	$89.78	15J	11G	8X	View
Power Equipment Operators	Material Transfer Device	$89.78	15J	11G	8X	View

Power Equipment Operators	Mechanics: All (Leadmen - $0.50 per hour over mechanic)	$90.60	15J	11G	8X	View
Power Equipment Operators	Motor Patrol Graders	$90.58	15J	11G	8X	View
Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$90.58	15J	11G	8X	View
Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$85.17	15J	11G	8X	View
Power Equipment Operators	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	$89.10	15J	11G	8X	View
Power Equipment Operators	Overhead, bridge type Crane: 20 tons through 44 tons	$91.25	7A	11H	8X	View
Power Equipment Operators	Overhead, bridge type: 100 tons and over	$92.98	7A	11H	8X	View
Power Equipment Operators	Overhead, bridge type: 45 tons through 99 tons	$91.73	7A	11H	8X	View
Power Equipment Operators	Pavement Breaker	$85.17	15J	11G	8X	View
Power Equipment Operators	Pile Driver (other Than Crane Mount)	$89.78	15J	11G	8X	View
Power Equipment Operators	Plant Oiler - Asphalt, Crusher	$89.10	15J	11G	8X	View
Power Equipment Operators	Posthole Digger, Mechanical	$85.17	15J	11G	8X	View
Power Equipment Operators	Power Plant	$85.17	15J	11G	8X	View
Power Equipment Operators	Pumps - Water	$85.17	15J	11G	8X	View
Power Equipment Operators	Quad 9, Hd 41, D10 And Over	$90.58	15J	11G	8X	View
Power Equipment Operators	Quick Tower: no cab, under 100 feet in height base to boom	$89.78	15J	11G	8X	View
Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	$90.58	15J	11G	8X	View
Power Equipment Operators	Rigger and Bellman	$86.60	7A	11H	8X	View
Power Equipment Operators	Rigger/Signal Person, Bellman(Certified)	$90.55	7A	11H	8X	View
Power Equipment Operators	Rollagon	$90.58	15J	11G	8X	View
Power Equipment Operators	Roller, Other Than Plant Mix	$85.17	15J	11G	8X	View
Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	$89.10	15J	11G	8X	View
Power Equipment Operators	Roto-mill, Roto-grinder	$89.78	15J	11G	8X	View
Power Equipment Operators	Saws - Concrete	$89.10	15J	11G	8X	View
Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	$89.78	15J	11G	8X	View
Power Equipment Operators	Scrapers - Concrete & Carry All	$89.10	15J	11G	8X	View
Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	$90.58	15J	11G	8X	View
Power Equipment Operators	Service Engineers: Equipment	$89.10	15J	11G	8X	View
Power Equipment Operators	Shotcrete/Gunite Equipment	$85.17	15J	11G	8X	View

Power Equipment Operators	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	$89.10	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$90.58	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$89.78	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$90.60	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$92.45	15J	11G	8X	View
Power Equipment Operators	Slipform Pavers	$90.58	15J	11G	8X	View
Power Equipment Operators	Spreader, Topsider & Screedman	$90.58	15J	11G	8X	View
Power Equipment Operators	Subgrader Trimmer	$89.78	15J	11G	8X	View
Power Equipment Operators	Tower Bucket Elevators	$89.10	15J	11G	8X	View
Power Equipment Operators	Tower Crane: over 175' through 250' in height, base to boom	$93.95	7A	11H	8X	View
Power Equipment Operators	Tower crane: up to 175' in height base to boom	$92.98	7A	11H	8X	View
Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	$94.85	7A	11H	8X	View
Power Equipment Operators	Transporters, All Track Or Truck Type	$90.58	15J	11G	8X	View
Power Equipment Operators	Trenching Machines	$89.10	15J	11G	8X	View
Power Equipment Operators	Truck Crane Oiler/Driver: 100 tons and over	$91.25	7A	11H	8X	View
Power Equipment Operators	Truck crane oiler/driver: under 100 tons	$90.55	7A	11H	8X	View
Power Equipment Operators	Truck Mount Portable Conveyor	$89.78	15J	11G	8X	View
Power Equipment Operators	Vac Truck (Vactor Guzzler, Hydro Excavator)	$89.78	15J	11G	8X	View
Power Equipment Operators	Welder	$90.58	15J	11G	8X	View
Power Equipment Operators	Wheel Tractors, Farmall Type	$85.17	15J	11G	8X	View
Power Equipment Operators	Yo Yo Pay Dozer	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Asphalt Plant Operators	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Assistant Engineer	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Barrier Machine (zipper)	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Batch Plant Operator, Concrete	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Boat Operator	$91.73	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Bobcat	$85.17	15J	11G	8X	View

Power Equipment Operators-Underground Sewer & Water	Brokk - Remote Demolition Equipment	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Brooms	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Bump Cutter	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Cableways	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Chipper	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Compressor	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Concrete Finish Machine - Laser Screed	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Conveyors	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes Friction: 200 tons and over	$94.85	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes, A-frame: 10 tons and under	$86.60	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	$92.98	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes: 20 tons through 44 tons with attachments	$91.25	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	$93.95	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes: 300 tons and over or 300' of boom including jib with attachments	$94.85	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	$91.73	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes: Friction cranes through 199 tons	$93.95	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Cranes: through 19 tons with attachments, a-frame over 10 tons	$90.55	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Crusher	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Deck Engineer/Deck Winches (power)	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Derricks, On Building Work	$91.73	7A	11H	8X	View

Power Equipment Operators-Underground Sewer & Water	Dozers D-9 & Under	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Drilling Machine	$90.60	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Elevator and man-lift: permanent and shaft type	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Forklift: 3000 lbs and over with attachments	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Forklifts: under 3000 lbs. with attachments	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Gradechecker/Stakeman	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Guardrail Punch	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off-Road Equipment 45 Yards. & Over	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Locator	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Operator	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom trucks: 10 tons and under	$86.60	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom trucks: over 10 tons	$90.55	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Leverman	$92.45	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Loaders, Overhead Under 6 Yards	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Loaders, Plant Feed	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Loaders: Elevating Type Belt	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Locomotives, All	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Material Transfer Device	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Mechanics: All (Leadmen - $0.50 per hour over mechanic)	$90.60	15J	11G	8X	View

Power Equipment Operators-Underground Sewer & Water	Motor Patrol Graders	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type Crane: 20 tons through 44 tons	$91.25	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type: 100 tons and over	$92.98	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type: 45 tons through 99 tons	$91.73	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Pavement Breaker	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Pile Driver (other Than Crane Mount)	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Posthole Digger, Mechanical	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Power Plant	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Pumps - Water	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Quick Tower: no cab, under 100 feet in height base to boom	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Rigger and Bellman	$86.60	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Rigger/Signal Person, Bellman(Certified)	$90.55	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Rollagon	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Roller, Other Than Plant Mix	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Roto-mill, Roto-grinder	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Saws - Concrete	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	$89.78	15J	11G	8X	View

Power Equipment Operators-Underground Sewer & Water	Scrapers - Concrete & Carry All	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Shotcrete/Gunite Equipment	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$90.60	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$92.45	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Slipform Pavers	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Spreader, Topsider & Screedman	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Subgrader Trimmer	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Tower Bucket Elevators	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Tower Crane: over 175' through 250' in height, base to boom	$93.95	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Tower crane: up to 175' in height base to boom	$92.98	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	$94.85	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Transporters, All Track Or Truck Type	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Trenching Machines	$89.10	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/Driver: 100 tons and over	$91.25	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Truck crane oiler/driver: under 100 tons	$90.55	7A	11H	8X	View
Power Equipment Operators-Underground Sewer & Water	Truck Mount Portable Conveyor	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Vac Truck (Vactor Guzzler, Hydro Excavator)	$89.78	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Welder	$90.58	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Wheel Tractors, Farmall Type	$85.17	15J	11G	8X	View
Power Equipment Operators-Underground Sewer & Water	Yo Yo Pay Dozer	$89.78	15J	11G	8X	View
Power Line Clearance Tree Trimmers	Journey Level In Charge	$65.20	5A	4A		View

Power Line Clearance Tree Trimmers	Spray Person	$61.74	5A	4A	View
Power Line Clearance Tree Trimmers	Tree Equipment Operator	$65.00	5A	4A	View
Power Line Clearance Tree Trimmers	Tree Trimmer	$58.29	5A	4A	View
Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	$43.05	5A	4A	View
Refrigeration & Air Conditioning Mechanics	Journey Level	$100.71	5A	1G	View
Residential Brick Mason	Journey Level	$32.30		1	View
Residential Carpenters	Journey Level	$40.89		1	View
Residential Cement Masons	Journey Level	$20.67		1	View
Residential Drywall Applicators	Journey Level	$51.52	15J	4C	View
Residential Drywall Tapers	Journey Level	$40.92		1	View
Residential Electricians	Journey Level	$48.59	7F	1D	View
Residential Glaziers	Journey Level	$56.50	7L	1H	View
Residential Insulation Applicators	Journey Level	$32.93		1	View
Residential Laborers	Journey Level	$23.64		1	View
Residential Marble Setters	Journey Level	$32.30		1	View
Residential Painters	Journey Level	$30.66		1	View
Residential Plumbers & Pipefitters	Journey Level	$57.55	5A	1G	View
Residential Refrigeration & Air Conditioning Mechanics	Journey Level	$105.42	7F	1E	View
Residential Sheet Metal Workers	Journey Level	$24.60		1	View
Residential Soft Floor Layers	Journey Level	$36.37		1	View
Residential Sprinkler Fitters (Fire Protection)	Journey Level	$37.16		1	View
Residential Stone Masons	Journey Level	$32.30		1	View
Residential Terrazzo Workers	Journey Level	$32.30		1	View
Residential Terrazzo/Tile Finishers	Journey Level	$35.85		1	View
Residential Tile Setters	Journey Level	$32.30		1	View
Roofers	Journey Level	$67.45	5A	3H	View
Roofers	Using Irritable Bituminous Materials	$70.45	5A	3H	View
Sheet Metal Workers	Journey Level (Field or Shop)	$101.96	7F	1E	View
Shipbuilding & Ship Repair	New Construction Boilermaker	$61.07	7X	4J	View
Shipbuilding & Ship Repair	New Construction Carpenter	$51.85	7X	4J	View
Shipbuilding & Ship Repair	New Construction Crane Operator	$44.29	7V	1	View
Shipbuilding & Ship Repair	New Construction Electrician	$61.12	7X	4J	View

Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	$96.42	15H	11C	View
Shipbuilding & Ship Repair	New Construction Laborer	$60.73	7X	4J	View
Shipbuilding & Ship Repair	New Construction Machinist	$60.93	7X	4J	View
Shipbuilding & Ship Repair	New Construction Operating Engineer	$44.29	7V	1	View
Shipbuilding & Ship Repair	New Construction Painter	$60.93	7X	4J	View
Shipbuilding & Ship Repair	New Construction Pipefitter	$61.21	7X	4J	View
Shipbuilding & Ship Repair	New Construction Rigger	$61.07	7X	4J	View
Shipbuilding & Ship Repair	New Construction Sheet Metal	$60.94	7X	4J	View
Shipbuilding & Ship Repair	New Construction Shipwright	$51.85	7X	4J	View
Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	$44.29	7V	1	View
Shipbuilding & Ship Repair	New Construction Welder / Burner	$61.07	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Boilermaker	$61.07	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Carpenter	$51.85	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Crane Operator	$45.06	7Y	4K	View
Shipbuilding & Ship Repair	Ship Repair Electrician	$61.12	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	$96.42	15H	11C	View
Shipbuilding & Ship Repair	Ship Repair Laborer	$60.73	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Machinist	$60.93	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Operating Engineer	$45.06	7Y	4K	View
Shipbuilding & Ship Repair	Ship Repair Painter	$60.93	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Pipefitter	$61.21	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Rigger	$61.07	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Sheet Metal	$60.94	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Shipwright	$51.85	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	$45.06	7Y	4K	View
Sign Makers & Installers (Electrical)	Journey Level	$16.66		1	View
Sign Makers & Installers (Non-Electrical)	Journey Level	$16.66		1	View
Soft Floor Layers	Journey Level	$63.29	15J	4C	View
Solar Controls For Windows	Journey Level	$16.66		1	View
Sprinkler Fitters (Fire Protection)	Journey Level	$103.19	5C	1X	View
Stage Rigging Mechanics (Non Structural)	Journey Level	$16.66		1	View
Stone Masons	Journey Level	$76.07	7E	1N	View

Street And Parking Lot Sweeper Workers	Journey Level	$16.66		1		View
Surveyors	Assistant Construction Site Surveyor	$90.55	7A	11H	8X	View
Surveyors	Chainman	$86.60	7A	11H	8X	View
Surveyors	Construction Site Surveyor	$91.73	7A	11H	8X	View
Surveyors	Drone Operator (when used in conjunction with survey work only)	$86.60	7A	11H	8X	View
Surveyors	Ground Penetrating Radar Operator	$86.60	7A	11H	8X	View
Telecommunication Technicians	Telecom Technician Journey Level	$62.05	5B	1B		View
Telephone Line Construction - Outside	Cable Splicer	$42.62	5A	2B		View
Telephone Line Construction - Outside	Hole Digger/Ground Person	$27.97	5A	2B		View
Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	$35.60	5A	2B		View
Telephone Line Construction - Outside	Telephone Lineperson	$40.28	5A	2B		View
Terrazzo Workers	Journey Level	$70.61	7E	1N		View
Tile Setters	Journey Level	$68.61	7E	1N		View
Tile, Marble & Terrazzo Finishers	Finisher	$59.44	7E	1N		View
Traffic Control Stripers	All cleanup required in connection with traffic control stripers work (Group 1)	$95.41	15L	1K		View
Traffic Control Stripers	Handling, painting and installing of all car stops, stop signs and any other type sign (Group 2)	$62.69	15L	1K		View
Traffic Control Stripers	Installation of guard rail and posts and similar protective devices (Group 2)	$62.69	15L	1K		View
Traffic Control Stripers	Installation of parking gates, ticket spitters and other mechanical and automatic control devices (Group 2)	$62.69	15L	1K		View
Traffic Control Stripers	Installation of plastic metal or composition button, or lines used instead of paint (Group 1)	$95.41	15L	1K		View
Traffic Control Stripers	Line removal; chemical sand and hydro-blast, paint and button (Group 1)	$95.41	15L	1K		View
Traffic Control Stripers	Manufacturing and installation of all car stops and control devices and similar traffic regulators (Group 2)	$62.69	15L	1K		View
Traffic Control Stripers	Manufacturing, painting, stenciling, servicing, repairing, placing and removal of traffic safety and control devices/barricades (Group 2)	$62.69	15L	1K		View
Traffic Control Stripers	Painting and installing lines, arrows, bumpers, curbs, etc., on parking lots, air fields, highways, game courts (Group 1)	$95.41	15L	1K		View
Traffic Control Stripers	Preparation and maintenance of all surfaces (Group 1)	$95.41	15L	1K		View

Traffic Control Stripers	Seal coating, slurry coating and other surface protection (Group 2)	$62.69	**15L**	**1K**		**View**
Truck Drivers	Asphalt Mix Over 16 Yards	$82.20	**15J**	**11M**	**8L**	**View**
Truck Drivers	Asphalt Mix To 16 Yards	$81.36	**15J**	**11M**	**8L**	**View**
Truck Drivers	Dump Truck	$81.36	**15J**	**11M**	**8L**	**View**
Truck Drivers	Dump Truck & Trailer	$82.20	**15J**	**11M**	**8L**	**View**
Truck Drivers	Other Trucks	$82.20	**15J**	**11M**	**8L**	**View**
Truck Drivers - Ready Mix	Transit Mix	$82.20	**15J**	**11M**	**8L**	**View**
Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	$16.66		**1**		**View**
Well Drillers & Irrigation Pump Installers	Oiler	$16.66		**1**		**View**
Well Drillers & Irrigation Pump Installers	Well Driller	$16.66		**1**		**View**

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Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.

J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.

K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

1. N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.

W. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer)) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.

Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.

Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

Overtime Codes Continued

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

   F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

   M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

   R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

   U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

   H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.

   J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Overtime Codes Continued

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage

C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:
On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.

S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus $2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).

U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

   The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

   When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

   When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

11. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

   C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

   D. All hours worked on Saturdays and holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

   E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

Overtime Codes Continued

11. F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.

H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.

J. All hours worked on holidays shall be paid at double the hourly rate of wage.

K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.

L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar ($2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

Overtime Codes Continued

11. M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.

Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars ($2.00) per hour.

N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.

Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.

O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Overtime Codes Continued

11. P. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Q. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 35% over the hourly rate of wage. Work performed on Sundays shall be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.

R On Monday through Saturday hours worked outside 6:00 am and 7:00 pm, and all hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

When a holiday falls on a Saturday, the Friday before shall be the observed holiday. When a holiday falls on a Sunday, the following Monday shall be the observed holiday.

S. The first ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions, or other conditions beyond the control of the Employer, then Saturday may be worked at the straight time rate, for the first eight (8) hours, or the first ten (10) hours when a four day ten hour workweek has been established.

All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

11. T. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

U. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

If, due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a Special Shift may be worked, Monday through Friday, at the straight-time rate. The starting time of work for the Special Shift will be arranged to fit such conditions of work. Such Special Shift shall consist of eight (8) hours of work for eight (8) hours of pay or ten (10) hours of work for ten(10) hours of pay on a four-ten workday schedule.

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).

C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).

H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).

Holiday Codes Continued

5. I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).

L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).

N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.

Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).

S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

Holiday Codes Continued

6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).

H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).

T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

Holiday Codes Continued

7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

7. G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

7. K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.

X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.

Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

O. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, the day before Christmas day, and Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Note Codes

8. D. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: $1.00, Levels C & D: $0.50.

N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: $2.00, Class B Suit: $1.50, And Class C Suit: $1.00. Workers performing underground work receive an additional $0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional $0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional $0.50 per hour.

8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.

Note Codes Continued

X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50. Special Shift Premium: Basic hourly rate plus $2.00 per hour.

When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

Z. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Note Codes Continued

9. A. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130’ to 199’ – $0.50 per hour over their classification rate.
(B) – 200’ to 299’ – $0.80 per hour over their classification rate.
(C) – 300’ and over – $1.00 per hour over their classification rate.

Note Codes Continued

9. B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

9. I. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

Employees may be required to perform any combination of work within the Diving team/crew, (with the exception of dive Supervisor) provided they are paid at the highest rate at which he/she has worked for the shift.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

APPENDIX C

Construction Contract and Contract Bond-Informational Only

CONSTRUCTION CONTRACT AGREEMENT

THIS AGREEMENT, effective upon the date of mutual execution, is made and entered into between Skagit County, Washington, and _____, hereinafter called the Contractor.

WITNESSETH:
That in consideration of the terms and conditions contained herein and attached and made a part of this agreement, the parties hereto covenant and agree as follows:

I. The Contractor shall do all work and furnish all tools, materials, equipment, and transportation required for the construction of **South Osterman Creek Culvert Repair, EO214-5,** in accordance with and as described in the attached plans and specifications and the Washington State Department of Transportation *Standard Specifications for Road, Bridge, and Municipal Construction M 41-10 2025 edition*, which are by this reference incorporated herein and made a part hereof, and shall perform any changes to the work in accord with the Contract Documents.

II. The Contractor shall provide and bear the expense of all equipment, work, and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work provided for in this contract and every part thereof and shall guarantee said materials and work for a period of one year after substantial completion of this contract, except as may be modified by the plans, specifications and/or contract documents.

III. Skagit County, Washington, hereby promises and agrees with the Contractor to retain and does retain the Contractor to provide the materials and to do and cause to be done the above-described work and to complete and finish the same according to the attached plans and specifications and the terms and conditions herein contained, and hereby contracts to pay for the same according to the attached specifications and the schedule of prices bid and hereto attached, at the time and in the manner and upon the conditions provided for in this contract.

IV. The Contractor for himself/herself, and for his/her heirs, executors, administrators, successors, and assigns, does hereby agree to full performance of all covenants required of the Contractor in the contract.

V. It is further provided that no liability shall attach to Skagit County by reason of entering into this contract, except as provided herein.

IN WITNESS WHEREOF the Contractor has executed this instrument on the day and year first below written, and the Authorized Official has caused this instrument to be executed by and in the name of Skagit County the day and year first above written.

CONTRACTOR

Signature _____ Mailing Address:

Printed _____

Title _____

Date _____ Telephone No. (___) ____-____

INFORMATIONAL ONLY

DATED this _____ day of _____, 2025.

BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON

_____
Lisa Janicki, Chair

_____
Ron Wesen, Commissioner

_____
Peter Browning, Commissioner

Attest:

_____
Clerk of the Board

For contracts under $5,000:
Authorization per Resolution R20030146

_____
County Administrator

Recommended:

_____
Department Head

Approved as to form:

_____
Civil Deputy Prosecuting Attorney

Approved as to indemnification:

_____
Risk Manager

Approved as to budget:

_____
Budget & Finance Director

INFORMATIONAL ONLY

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS, that Skagit County, a Municipal Corporation of Washington, has awarded _____ of _____, as Principal, and _____as Surety, are jointly and severally held and bound unto the County of Skagit in the penal sum of _____ ($_____), dollars, for the payment of which we jointly and severely bind ourselves, our heirs, executors, administrators, and assigns, and successors and assigns, firmly by these presents.

THE CONDITION of this bond is such that whereas, on the _____ day of _____ A.D., 2025, the said Principal, herein, executed a certain contract with the County of Skagit by the items, conditions and provisions of which contract the said _____, Principal, herein agree to furnish all material and do certain work, to wit: That _____ will undertake and complete the construction of

South Osterman Creek Culvert Repair
Project#EO214-5;
FEMA Project #4650DR-WA-674680

according to the maps, plans and specifications made a part of said contract, which contract as so executed, is hereunto attached, is now referred to and by reference is incorporated herein and made a part hereof as fully for all purposes as if here set forth at length. The bond shall cover all approved change orders as if they were in the original contract.

NOW, THEREFORE, if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of said contract in all respects and shall well and truly and fully do and perform all matters and things by _____ (principal) undertaken to be performed under said contract, upon the terms proposed therein, and within the time prescribed therein, and until the same is accepted, and shall pay all laborers, mechanics, subcontractors and material men, and all persons who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and shall in all respects faithfully

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perform said contract according to law, then this obligation to be void, otherwise to remain in full force and effect.

WITNESS our hands this _____ day of _____, 2025.

_____

_____

_____
(Principal)

_____

_____

_____
Attorney-in-Fact, Surety

_____
Name and Address
Local Office of Agent

APPROVED AS TO FORM
RICH WEYRICH
Skagit County Prosecuting Attorney

APPROVED AS TO FORM
MARY HOUBEN
Skagit County Risk Manager

BY: _____
Approving Authority

DATE: _____, 2025

_____
SURETY BOND NUMBER

_____
CONTRACT NUMBER

_____

_____

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APPENDIX D

Proposal Forms-Informational Only

Proposal for Bidding Purposes

For Construction of:

South Osterman Creek Culvert Repair
Project#EO214-5;
FEMA Project #4650DR-WA-674680

SKAGIT COUNTY PUBLIC WORKS

INFORMATIONAL ONLY

SKAGIT COUNTY
Public Works Department
1800 Continental Place
Mount Vernon, WA 98273

PROPOSAL

South Osterman Creek Culvert Repair
Project#EO214-5;
FEMA Project #4650DR-WA-674680

THE ENTIRE PROPOSAL SHALL BE RETURNED AS YOUR BID PACKAGE. FAILURE TO RETURN THE ENTIRE PROPOSAL MAY RESULT IN REJECTION OF BID PER PROJECT SPECIAL PROVISIONS

All bid envelopes must be plainly marked on the outside, **"Sealed Bid, South Osterman Creek Culvert Repair Project#EO214-5;**

Sealed Bids will be received at the following location before the specified time:

Bids may be hand delivered to: The Reception Desk of Skagit County Commissioners Office, located at 1800 Continental Place, Mount Vernon, WA.

Bids may be mailed to: Skagit County Commissioners
1800 Continental Place, Suite 100
Mount Vernon, Washington, 98273

The bid opening date for this project will be **Monday, December 15, 2025.** The bids will be publicly opened and read after **2:30 p.m.** on this date.

Bid Advertisement:

Published: Skagit Valley Herald – November 13, 20 & 27, 2025
Daily Journal of Commerce – November 13, 20 & 27, 2025

Posted: Washington State Office of Minority & Women's Business Enterprises (OMWBE) – Bids & Contracting Opportunities webpage –November 13, 2025
https://omwbe.wa.gov/small-business-assistance/bids-contracting-opportunities

Skagit County Website on November 13, 2025
www.skagitcounty.net/rfp

ENTIRE PROPOSAL TO BE RETURNED AS YOUR BID PACKAGE

FAILURE TO SIGN OR COMPLETE ALL INFORMATION ON THE FORMS PROVIDED MAY RESULT IN REJECTION OF THE PROPOSAL AS NON-RESPONSIVE

INFORMATIONAL ONLY

PROPOSAL

BOARD OF SKAGIT COUNTY COMMISSIONERS
MOUNT VERNON, WASHINGTON 98273

Attention:

This certifies that the undersigned has examined the locations of:

South Osterman Creek Culvert Repair Project#EO214-5

and that the plans, specifications and contract governing the work embraced in this improvement, and the method by which payment will be made for said work is understood. The undersigned hereby proposes to undertake and complete the work embraced in this improvement, or as much thereof as can be completed with the money available in accordance with the said plans, specifications, and contract, and the following schedule of rates and prices:

Note: for work performed on this project the contractor should refer to Section 1-07.2(1) of the contract provisions and Department of Revenue Rule #171.

(Note: Unit prices for all items, all extensions, and total amount of bid shall be shown. All entries must be typed or entered in ink.)

South Osterman Creek Culvert Repair Project#EO214-5

Item No.	Description	Spec	QTY	Unit of Measure	Unit Price	Extended Price
1	MOBILIZATION	1-09.7	1.00	L.S.	$_____ .___	$_____ .___
2	MINOR CHANGE	1-04.4	1.00	EST.	$ 25,000 .00	$ 25,000 .00
3	SPCC PLAN	1-07.15	1.00	L.S.	$_____ .___	$_____ .___
4	TYPE B PROGRESS SCHEDULE	1-08	1.00	L.S.	$_____ .___	$_____ .___
5	STRUCTURE SURVEYING	1-05.4 SP	1.00	L.S.	$_____ .___	$_____ .___
6	ROADWAY SURVEYING	1-05.4 SP	1.00	L.S.	$_____ .___	$_____ .___

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7	CHANNEL SURVEYING	1-05.4 SP	1.00	L.S.	$_____ .___	$_____ .___
8	PROJECT TEMPORARY TRAFFIC CONTROL	1-10	1.00	L.S.	$_____ .___	$_____ .___
9	WORK ZONE SAFETY CONTINGENCY	1-10	1.00	EST.	$ 5,000 .00	$ 5,000 .00
10	CONSTRUCTION SIGNS CLASS A	1-10	420.00	S.F.	$_____ .___	$_____ .___
11	PORTABLE CHANGEABLE MESSAGE SIGN	1-10	2016.00	HR	$_____ .___	$_____ .___
12	PAINT LINE	8-22	1300.00	L.F.	$_____ .___	$_____ .___
13	FISH EXCLUSION ASSISTANCE	8-31	1.00	EST.	$ 10,000 .00	$ 10,000 .00
14	FISH BLOCK NET MAINTENANCE	8-31	1.00	EST.	$ 5,000 .00	$ 5,000 .00
15	CLEARING AND GRUBBING	2-01	1.00	ACRE	$_____ .___	$_____ .___
16	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	2-02	1.00	L.S.	$_____ .___	$_____ .___
17	SAWCUTTING	2-03 SP	150.00	IN-FT	$_____ .___	$_____ .___
18	ROADWAY EXCAVATION INCL. HAUL	2-03	450.00	C.Y.	$_____ .___	$_____ .___
19	CHANNEL EXCAVATION INCL. HAUL	2-03	2700.00	C.Y.	$_____ .___	$_____ .___
20	SLOPE STABILIZATION EXCAVATION INCL. HAUL	2-08 SP	530.00	C.Y.	$_____ .___	$_____ .___
21	SLOPE STABILIZATION FILL	2-08 SP	90.00	C.Y.	$_____ .___	$_____ .___

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22	STRUCTURE EXCAVATION CLASS A INCL. HAUL	2-09	1230.00	C.Y.	$_____ .___	$_____ .___
23	SHORING OR EXTRA EXCAVATION CL. A	2-09	1.00	L.S.	$_____ .___	$_____ .___
24	UNSUITABLE FOUNDATION EXCAVATION INCL. HAUL	2-09	90.00	C.Y.	$_____ .___	$_____ .___
25	TEMPORARY DEWATERING SYSTEM	6-20 SP	1.00	L.S.	$_____ .___	$_____ .___
26	PERMEABLE BALLAST	8-27	170.00	TON	$_____ .___	$_____ .___
27	GRAVEL BORROW INCL. HAUL	9-03 SP	950.00	TON	$_____ .___	$_____ .___
28	CRUSHED SURFACING TOP COURSE	4-04	140.00	TON	$_____ .___	$_____ .___
29	HMA CL. 1/2 IN. PG 58H-22	5-04 SP	170.00	TON	$_____ .___	$_____ .___
30	GRAVEL BACKFILL FOR WALL	4-04	300.00	C.Y.	$_____ .___	$_____ .___
31	PRECAST REINF. CONC. SPLIT BOX CULVERT NO. 1	6-02	1.00	L.S.	$_____ .___	$_____ .___
32	TEMPORARY STREAM DIVERSION	8-31	1.00	L.S.	$_____ .___	$_____ .___
33	TIMBER HANDRAIL	6-23	64.00	L.F.	$_____ .___	$_____ .___
34	EROSION CONTROL AND WATER POLLUTION PREVENTION	8-01	1.00	L.S.	$_____ .___	$_____ .___
35	STABILIZED CONSTRUCTION ENTRANCE	8-01	525.00	S.Y.	$_____ .___	$_____ .___

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36	WATTLE	8-01	1550.00	L.F.	$_____ .___	$_____ .___
37	HIGH VISIBILITY FENCE	8-01	1220.00	L.F.	$_____ .___	$_____ .___
38	SEEDING AND MULCHING	8-02	0.70	ACRE	$_____ .___	$_____ .___
39	ESC LEAD	8-01	12.00	DAY	$_____ .___	$_____ .___
40	PSIPE VINE MAPLE, 1 GAL	8-02	69.00	EA	$_____ .___	$_____ .___
41	PSIPE BIGLEAF MAPLE, 1 GAL	8-02	28.00	EA	$_____ .___	$_____ .___
42	PSIPE COMMON YARROW, 1 GAL	8-02	80.00	EA	$_____ .___	$_____ .___
43	PSIPE RED ALDER, 1 GAL	8-02	12.00	EA	$_____ .___	$_____ .___
44	PSIPE KINNIKINNICK, 4"	8-02	80.00	EA	$_____ .___	$_____ .___
45	PSIPE TALL OREGONGRAPE, 1 GAL	8-02	99.00	EA	$_____ .___	$_____ .___
46	PSIPE REDOSIER DOGWOOD, 1 GAL	8-02	90.00	EA	$_____ .___	$_____ .___
47	PSIPE BEAKED HAZELNUT, 1 GAL	8-02	21.00	EA	$_____ .___	$_____ .___
48	PSIPE BLACK HAWTHORN, 1 GAL	8-02	12.00	EA	$_____ .___	$_____ .___
49	PSIPE OSOBERRY, 1 GAL	8-02	46.00	EA	$_____ .___	$_____ .___
50	PSIPE WESTERN SWORDFERN, 1 GAL	8-02	177.00	EA	$_____ .___	$_____ .___

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51	PSIPE DOUGLAS-FIR, 1 GAL	8-02	48.00	EA	$_____ .___	$_____ .___
52	PSIPE SPREADING GOOSEBERRY, 1 GAL	8-02	46.00	EA	$_____ .___	$_____ .___
53	PSIPE THIMBLEBERRY, 1 GAL	8-02	46.00	EA	$_____ .___	$_____ .___
54	PSIPE SALMONBERRY, 1 GAL	8-02	90.00	EA	$_____ .___	$_____ .___
55	PSIPE PACIFIC WILLOW, 4' LIVE STAKE	8-02	161.00	EA	$_____ .___	$_____ .___
56	PSIPE RED ELDERBERRY, 1 GAL	8-02	45.00	EA	$_____ .___	$_____ .___
57	PSIPE SNOWBERRY, 1 GAL	8-02	112.00	EA	$_____ .___	$_____ .___
58	PSIPE WESTERN RED CEDAR, 1 GAL	8-02	16.00	EA	$_____ .___	$_____ .___
59	WOOD CHIP MULCH	8-02	60.00	C.Y.	$_____ .___	$_____ .___
60	BEAM GUARDRAIL TYPE 31 - 8 FT. LONG POST	8-11	350.00	L.F.	$_____ .___	$_____ .___
61	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	8-11	2.00	EA	$_____ .___	$_____ .___
62	BEAM GUARDRAIL ANCHOR TYPE 11	8-11	2.00	EA	$_____ .___	$_____ .___
63	BOX CULVERT GUARDRAIL STEEL POST TYPE 31	8-11	8.00	EA	$_____ .___	$_____ .___
64	CABLE FENCE	8-12	114.00	L.F.	$_____ .___	$_____ .___
65	PERMANENT SIGNING	8-21	1.00	L.S.	$_____ .___	$_____ .___

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66	STREAMBED COBBLES 12 IN.	8-30	1300.00	TON	$_____ .___	$_____ .___
67	STREAMBED SEDIMENT	8-30	1130.00	TON	$_____ .___	$_____ .___
68	BOULDER SILL	8-30	14.00	EA	$_____ .___	$_____ .___
69	STREAMBED SAND	8-30	330.00	C.Y.	$_____ .___	$_____ .___
70	INSTREAM WOOD PLACEMENT - LOG TRIANGLE UNIT	8-27 SP	8.00	EA	$_____ .___	$_____ .___
71	INSTREAM WOOD PLACEMENT - BANK ROOTWAD	8-27 SP	10.00	EA	$_____ .___	$_____ .___
72	INSTREAM WOOD PLACEMENT - CHANNEL ROOTWAD - SHORT	8-27 SP	9.00	EA	$_____ .___	$_____ .___
73	INSTREAM WOOD PLACEMENT - CHANNEL ROOTWAD - LONG	8-27 SP	5.00	EA	$_____ .___	$_____ .___
74	INSTREAM WOOD PLACEMENT - SLASH WATTLE	8-27 SP	23.00	EA	$_____ .___	$_____ .___
75	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION	8-30	270.00	S.Y.	$_____ .___	$_____ .___
76	STREAMBED BOULDER TYPE 1	8-30	530.00	TON	$_____ .___	$_____ .___
77	STREAMBED BOULDER TYPE 2	8-30	700.00	TON	$_____ .___	$_____ .___
78	STREAMBED BOULDER TYPE 3	8-30	480.00	TON	$_____ .___	$_____ .___
79	STREAMBED BOULDER TYPE 4	8-30	330.00	TON	$_____ .___	$_____ .___

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80	RECORD DRAWINGS	1-05	1.00	L.S.	$_____ .___	$_____ .___
81	APPRENTICESHIP INCENTIVE/PENALTY	1-07.9(3)SP	1.00	EST.	$ 10,000 .00	$ 10,000 .00
					TOTAL BID	**$_____ .___**

FOR WORK PERFORMED ON THIS PROJECT THE CONTRACTOR SHOULD REFER TO SECTION 1-07.2(1) OF THE CONTRACT PROVISIONS AND DEPARTMENT OF REVENUE RULE #171.

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PROPOSAL – Signature Page

The bidder is hereby advised that by signature of this proposal he/she is deemed to have acknowledged all requirements and signed all certificates contained herein.

The undersigned hereby agrees to pay labor not less than the prevailing rates of wages in accordance with the requirements of the special provisions for this project.

A proposal guaranty in an amount of five percent (5%) of the total bid based upon the approximate estimate of quantities at the above prices and in the form as indicated below is attached hereto:

☐ CASHIER'S CHECK In the amount of $_____Dollars

☐ CERTIFIED CHECK (Payable to Skagit County) In the amount of $_____Dollars

☐ PROPOSAL BOND In the amount five percent (5%) of the total bid.

Receipt is hereby acknowledged of Addendum(s) No. (s) _____, _____, & _____

Signature of Authorized Officials(s):

Proposal Must Be Signed →

_____

_____

PRINT NAME

Firm Name: _____

Address: _____

_____

_____

Telephone No.: _____

State of Washington Contractor's License No._____

UBI No._____

Employment Security Department No. _____

Project Contact – Name & Phone#: _____

Note:

(1) This proposal form is not transferable, and any alteration of the firm's name entered hereon without prior permission from the Skagit County will be cause for considering the proposal irregular and subsequent rejection of the bid.

(2) Please refer to Section 1-02.6 of the Standard Specifications, "Preparation of Proposal", or "Article 4" of the Instruction to Bidders for building construction jobs.

BID PROPOSAL MUST BE SIGNED.

FAILURE TO SIGN OR COMPLETE ALL INFORMATION MAY RESULT IN REJECTION OF THE PROPOSAL AS NON-RESPONSIVE.

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SUBMIT THE ENCLOSED PROPOSAL BOND FORM WITH YOUR PROPOSAL

USE OF OTHER FORMS MAY SUBJECT YOUR BID TO REJECTION

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PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____
_____
of _____ as principal, and the
_____ a corporation duly
organized under the laws of the State of _____,
and authorized to do business in the State of Washington, as surety, are held and firmly bound unto Skagit County in the full and penal sum of five (5) percent of the total amount of the bid proposal of said principal for the work hereinafter described for the payment of which, well and truly to be made, we bind our heirs, executors, administrators and assigns, and successors and assigns, firmly by these presents.

The condition of this bond is such, that whereas the principal herein is herewith submitting his or its sealed proposal for the following highway construction, to wit:

South Osterman Creek Culvert Repair Project#EO214-5

said bid and proposal, by reference thereto, being made a part hereof.

NOW THEREFORE, If the said proposal bid by said principal be accepted, and the contract be awarded to said principal, and if said principal shall duly make and enter into and execute said contract and shall furnish bond as required by Skagit County within a period of twenty (20) days from and after said award, exclusive of the day of such award, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

IN TESTIMONY WHEREOF, The principal and surety have caused these presents to be signed and sealed this _____ day of _____, 2025.

_____

_____
(Principal)

_____ _____
(Surety) (Attorney-in-fact)

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Failure to return this Declaration as part of the bid proposal package will make the bid nonresponsive and ineligible for award.

NON-COLLUSION DECLARATION

I, by signing the proposal, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:

1. That the undersigned person(s), firm, association or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.
2. **That by signing the signature page of this proposal, I am deemed to have signed and to have agreed to the provisions of this declaration.**

NOTICE TO ALL BIDDERS

To report rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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Local Agency Certification for Federal-Aid Contracts

The prospective participant certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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

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

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

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

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Washington State Department of Transportation

Bidder Questionnaire

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Agency Name	Federal Aid Number
Prime Contractor Name	Contract Number
Contract Name	

Firm/ Subcontractor Name	Address (incl. Zipcode)	DBE Status	Race	Gender	NAICS Codes	Scope of Work	Firm Age	Firm Gross Receipts

If you have additional Firms or Subcontractors that submitted Bids, please complete additional forms.

Prime Contractor Representative | Title | Date

Form Instructions

The following information on each firm that submitted a bid is required as part of part of 49 CFR 26.11(c)(2):

Firm/Subcontractor Name: Enter the name of each firm or subcontractor who submitted a quote or a bid on the contract.

Address: Enter the date the main address of the firm/subcontractor. Include the zip code.

DBE Status: Enter the DBE status. *Options are DBE and Non-DBE.*

Race: Enter the race of the majority Owner. *Options are "Black American", "Hispanic American", "Native American", "Asian-Paci ic American", "Subcontinent Asian American", and "White".* N/A should only be used if there is not a majority owner such as when the Firm is a corporation.

Gender: Enter the gender of the majority Owner. *Options are "Female" and "Male".* N/A should only be used if there is not a majority owner such as when the Firm is a corporation.

NAICS Codes: Enter the appropriate NAICS Codes for the work the bid was submitted.

Scope of Work: Enter the scope of the work the bid was submitted for.

Firm Age: Enter the age of the Firm.

Firm Gross Receipts: Enter the annual gross receipts. *Options are "Less than $1 million", "$1-$3 million", "$3-$6 million", "$6-$10 million", "$10-$20 million ", "$20-$30.72 million ", "Greater than $30.72 million ".*

Prime Contractor Representative: The name of the person who filled out the form.

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Proposal for Incorporating Recycled Materials into the Project

In compliance with RCW 70A.205.700, the Bidder shall propose below, the total percent of construction aggregate and concrete materials to be incorporated into the Project that are recycled materials. Calculated percentages must be within the amounts allowed in Section 9-03.21(1)E, Table on Maximum Allowable Percent (By Weight) of Recycled Material, of the Standard Specifications.

Proposed total percentage: _____ percent.

Note: Use of recycled materials is highly encouraged within the limits shown above, but does not constitute a Bidder Preference, and will not affect the determination of award, unless two or more lowest responsive Bid totals are exactly equal, in which case proposed recycling percentages will be used as a tie-breaker, per the APWA GSP in Section 1-03.1 of the Special Provisions. Regardless, the Bidder's stated proposed percentages will become a goal the Contractor should do its best to accomplish. Bidders will be required to report on recycled materials actually incorporated into the Project, in accordance with the APWA GSP in Section 1-06.6 of the Special Provisions.

Bidder: _____

Signature of Authorized Official: _____

Date: _____

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Washington State Department of Transportation

Recycled Materials Reporting

Contract Number		Contract Title					
Contractor			Engineer				
		Reclaimed Hot Mix Asphalt	Recycled Concrete Aggregate	Recycled Glass	Steel Furnace Slag	Other Recycled Aggregates	Contract Total Quantity
Fine Aggregate for Portland Cement Concrete	9-03.1(2)						
Coarse Aggregate for Portland Cement Concrete	9-03.1(4)						
Coarse Aggregate for Commercial Concrete	9-03.1(4)						
Aggregates for Hot Mix Asphalt	9-03.8	see below					
Ballast	9-03.9(1)						
Permeable Ballast	9-03.9(2)						
Crushed Surfacing	9-03.9(3)						
Aggregate for Gravel Base	9-03.10						
Gravel Backfill for Foundations	9-03.12(1)						
Gravel Backfill for Walls	9-03.12(2)						
Gravel Backfill for Pipe Zone Bedding	9-03.12(3)						
Gravel Backfill for Drains	9-03.12(4)						
Gravel Backfill for Drywells	9-03.12(5)						
Backfill for Sand Drains	9-03.13						
Sand Drainage Blanket	9-03.13(1)						
Gravel Borrow	9-03.14(1)						
Select Borrow	9-03.14(2)						
Common Borrow	9-03.14(3)						
Foundation Material Class A and Class B	9-03.17						
Foundation Material Class C	9-03.18						
Bank Run Gravel for Trench Backfill	9-03.19						
Other Aggregate Materials (total quantity not required)	9-03						
TOTAL (recycled materials and contract total quantity)		0	0	0	0	0	0
		Reclaimed Hot Mix Asphalt	Reclaimed Asphalt Shingles		Steel Furnace Slag	Other Recycled Materials	Total Quantity
Hot Mix Asphalt	5-04.2						

I declare that the statements made in this document, including attachments, are complete, true and accurate.
Signed by an authorized representative of the Contractor

Contractor Representative Name	Signature	Title	Date

INSTRUCTIONS:

The Contractor shall report the quantity in ***tons*** for each type of recycled material that was used for each of the listed materials. If the Contract did not include the listed material or recycled materials were not used for this material a "0" shall be entered in the box. The Standard Specifications in Section 9-03.21 do not allow the use of recycled materials in the boxes that are shaded. If the Contract Provisions allowed and the Contractor utilized recycled materials for any of these items the amount of recycled material shall be entered in the box. The contract total quantity for each aggregate material (e.g., Fine Aggregate for Portland Cement Concrete) is the total weight in tons and includes both recycled and natural occurring materials. The total quantity for hot mix asphalt (HMA) is the total HMA weight in tons and includes recycled asphalt pavement (RAP) and new HMA materials.

Other recycled aggregates include other material sources that are utilized on a project. These sources include on-site recycling and aggregates from returned (uncured) concrete. Roadway excavation and embankment are not allowed in the quantity for other aggregate materials or other recycled aggregates.

Attach cost estimates as required in Section 1-06.6 of the Standard Specifications when the total percentage of recycled aggregate and concrete is less than 25 percent of the required amount for the entire Contract.

INFORMATIONAL ONLY

DOT Form 350-075
Revised 06/2016

Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (November 13, 2025), the bidder is not a "willful" violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

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

_____
Bidder's Business Name

_____
Signature of Authorized Official*

_____
Printed Name

_____
Title

_____ _____ _____
Date City State

Check One:
Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

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

_____

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

_____

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

INFORMATIONAL ONLY

Skagit County

1800 Continental Place
Mount Vernon, WA 98273

Local Agency Subcontractor List

Prepared in compliance with RCW 39.30.060 as amended

To Be Submitted with the Bid Proposal

Project Name South Osterman Creek Culvert Repair Project #EO214-5; FEMA #4650DR-WA-674680

Failure to list subcontractors with whom the bidder, if awarded the contract, will directly subcontract for performance of the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical, as described in Chapter 19.28 RCW or naming more than one subcontractor to perform the same work will result in your bid being non-responsive and therefore void.

Subcontractor(s) with whom the bidder will directly subcontract that are proposed to perform the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. The work to be performed is to be listed below the subcontractor(s) name.

To the extent the Project includes one or more categories of work referenced in RCW 39.30.060, and no subcontractor is listed below to perform such work, the bidder certifies that the work will either (i) be performed by the bidder itself, or (ii) be performed by a lower tier subcontractor who will not contract directly with the bidder.

Subcontractor Name _____

Work to be performed _____

Subcontractor Name _____

Work to be performed _____

Subcontractor Name _____

Work to be performed _____

Subcontractor Name _____

Work to be performed _____

Subcontractor Name _____

Work to be performed _____

* Bidder's are notified that it is the opinion of the enforcement agency that PVC or metal conduit, junction boxes, etc, are considered electrical equipment and therefore considered part of electrical work, even if the installation is for future use and no wiring or electrical current is connected during the project.

INFORMATIONAL ONLY

APPENDIX E

Federal Aid Provisions

Required Contract Provisions for Federal Aid Construction

FHWA 1273

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

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

(ii) The classification is used in the area by the construction industry; and

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

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

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

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

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

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

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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

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

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

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

APPENDIX F

Apprentice Utilization Requirements

RCW 39.04.300-320

SKAGIT COUNTY

APPRENTICE UTILIZATION REQUIREMENTS

RCW 39.04.300-320

Appendix "E"

Intent: As a material part of this Contract, this Appendix includes the requirements, process, and procedures associated with the utilization of apprentices on this Contract. These requirements are in addition to the requirements that may be found elsewhere in the Contract.

1. APPRENTICE UTILIZATION REQUIREMENT

The Contractor must ensure that **15 percent** of the total Contract Labor Hours used on the Project are performed by apprentices registered in a Washington approved training program. This requirement must be included in any subcontract at any tier on the Project.

Total Contract labor hours include additional hours worked because of Change Orders, and exclude hours worked by workers who are not subject to prevailing wage requirements such as foremen, superintendents, supervisors, and owners.

The contractor must ensure that supervisors (e.g. foreman, general foreman, superintendents) are paid prevailing wage when applicable per WAC 296-127-015.

The Contractor must ensure compliance with RCW 49.04, WAC 296-05, and the apprenticeship training standards for each trade/craft classification used on the Project, as set forth by L&I.

2. APPRENTICE UTILIZATION PLAN

The Contractor must submit a comprehensive plan listing the subcontractors and apprentices/programs to be used on the Project and how the apprentice utilization requirements will be met on the total Contract labor hours.

The plan must be submitted on the Apprentice Utilization Plan Form (WSDOT Form 424-004 within 30 calendar days of Contract execution, however no later than the preconstruction meeting.

An approved Plan is required prior to Notice to Proceed. An updated Plan is required upon any change to the originally approved plan (i.e. new subcontractor requests, Change Order Proposals, etc.).

INSTRUCTIONS:

- Include a listing of all subcontractors and their trades, regardless of if they will be using apprentices.
- Include an estimate from each subcontractor of how many hours they will perform on the project and how many of those hours will be performed by apprentices, as anticipated.
- List all state approved programs under which apprentices are enrolled or are going to enroll.
- Update the plan as the schedule changes, change orders are issued and/or new subcontractors are subcontracted, to verify that you can still meet the requirement through utilization.
- **Upload certified payroll** for every contractor, subcontractor, and hourly employee **weekly** into L&I's prevailing wage intents and affidavits portal.
- If, or as discovered, the prime or any subcontractor believes they cannot meet the apprenticeship utilization requirement a **good faith efforts approval process** must be started (form included in Appendix "E")

3. GOOD FAITH EFFORTS AND ADJUSTMENTS TO THE APPRENTICE UTILIZATION REQUIREMENT

If the Contractor determines that the Project will be unable to achieve the apprentice utilization percentage, the Contractor may make a written request to Skagit County to adjust the required apprentice utilization percentage as allowed under RCW 39.04.320(2).

The request must include documentation of the Contractor's and subcontractor's ***good faith efforts*** to hire registered apprentices.

Acceptable good faith efforts must include one, or more of the following:

1. Not enough registered apprentices in the geographic/county area as verified by WSATC;
2. An inadequate number of apprentices are available to comply with the required apprentice utilization percentage as verified by appropriate Washington State programs;
3. There are not enough hours on the project to afford the appropriate ratio of journey level to apprentice oversight as verified by the appropriate Washington State programs and documented through the Project schedule;
4. There is a disproportionately high ratio of material costs to labor hours, which does not make the required minimum levels of apprentice participation possible for this Contract as verified by the schedule of values/bid item breakdown and/or backup invoicing from suppliers or similar;
5. Apprentice utilization and involvement in work of the Project would void warranty as verified by an original equipment manufacturer and/or surety;
6. Other documented and verifiable impracticality that could not have been foreseen or avoided.

The Owner will evaluate the request and, if appropriate, prepare a Change Order reducing the required utilization percentage. If the Owner determines that a reduction in the required utilization percentage is not justified, the Owner will communicate the decision in writing to the Contractor and a monetary disincentive may be assessed.

4. PREVAILING WAGES FOR APPRENTICES

An apprentice is defined as a laborer, worker, or mechanic employed to perform the Work for whom an apprentice agreement is established through a Training Program that is registered and approved by the Washington State Apprenticeship and Training Council (WSATC).

Per RCW 39.12.021 and RCW 49.04, apprentices must be paid the applicable prevailing hourly rate for an apprentice of that trade. An apprentice wage schedule has been added to the Journey Level rates. Intents, Affidavits, and certified payrolls must contain the relevant apprentice information and be recorded in L&I's Prevailing Wage Intents and Affidavits system.

5. APPRENTICE UTILIZATION REPORTING

The Contractor and every Subcontractor must report all apprentices and the wages paid as required by L&I.

The Contractor must submit other information as requested by the Owner to verify compliance with the apprentice utilization requirements of the Contract. The Owner may add, delete, or change the information required by the Contractor, as necessary.

6. MONITORING APPRENTICE UTILIZATION

The Owner will monitor the Contractor's and subcontractor's progress in apprentice utilization by reviewing and approving Apprentice Utilization Plan(s), Intents and Affidavits filed and Certified Payroll as part of the monthly Progress Payment reviews. The Owner reserves the right to withhold payment until appropriate documentation is loaded into PWIA.

7. MEETING APPRENTICE UTILIZATION REQUIREMENTS: MONETARY INCENTIVE

Should the Contractor, and/or subcontractors, achieve 15% apprentice utilization ***without any good faith efforts*****,** a monetary assessment of $10,000.00 will be paid to the Contractor for proportional distribution to all employers of apprentices on the Project. Incentive payment for successfully reaching apprentice goal shall be made upon Physical Completion.

8. FAILURE TO COMPLY WITH APPRENTICE UTILIZATION REQUIREMENTS: DISINCENTIVE ASSESSMENT

Failure to comply with requirements for apprentice utilization, without a good faith effort, is a material breach of the Contract for which the Contractor, or its subcontractors, are subject to damages. If the Owner determines that the Contractor, or any of its subcontractors, are non-compliant, a monetary disincentive assessment of $46.74 for every minimum apprentice hour not achieved, will be subtracted from monies otherwise owed to the Contractor. If no additional monies are owed, an invoice will be sent for remittance prior to the filing of the Notice of Completion with the state. *In no event, will the disincentive assessment exceed 5% of the Total Contract Cost*.

Washington State Department of Transportation

Apprentice Utilization Plan

To be submitted no later than thirty (30) days following Execution

Contract Title	Contract Number	Today's Date

Prime Contractor	Apprentice Utilization Requirement

*Include all labor hours for all trades (including apprentice hours), including those performed by Subcontractors. Use additional sheets if needed.

				Estimated	
Start Date (mm/dd/yy)	Contractor or Subcontractor	Trade/Craft	Trade/Craft Other Description	Total Labor* (Hours)	Apprentice (Hours)

SKAGIT COUNTY

Apprentice Utilization Good Faith Efforts Documentation
RCW 39.04.300-320

Project: _____ Date: _____

Prime: _____

Prepared By (print name and title): _____

Requested apprentice utilization percentage (goal adjustment): _____

Contractor Statement

An adjustment to the apprentice utilization requirements for the above-named project is hereby requested. All contractors and subcontractors on the project understand the requirements, have performed the following documented good faith efforts, and have confirmed that the required apprentice utilization hours will not be able to be achieved for the ***following rationale.*** _____(initial)

Rationale. Check all that apply.

- ☐ Demonstrated lack of availability of apprentices (regionally or by trade). [list trades]
- ☐ No Apprenticeship Program - State approved apprentice programs unavailable for the specific work type.
- ☐ Conflicting Federal Training Requirement.
- ☐ Apprentice to Journeymen Ratios and Lack of Available Hours - Not enough hours available on the job to accommodate the ratio, supervision, or work process required.
- ☐ Apprentice(s) Graduate During Project.
- ☐ Work Too Technical or Prescriptive Warranty Work - Warranty or specialty work requirements unable to accommodate apprentices.
- ☐ Disproportionately high ratio of material/product/equipment cost to labor.
- ☐ Funding requires federal, native American, or other employee training program that conflicts with Washington State apprentice utilization requirements.
- ☐ Other (see below): _____(fill in)

Supporting documentation must be attached to substantiate the request. Check all that apply and attach.

- ☐ Emails, letters, or similar **communication with appropriate state apprenticeship program** confirming the assessment or denying apprentices or similar. Include, dates, time, responses, names, titles, and similar information.
- ☐ **Manufacturer letter** or email statement of equipment, material, or product that substantiates the cost and/or the specialty nature or the item and the requirement for certified/specific installers or similar.
- ☐ **Specification section**, funding requirement, or similar precluding or hindering state apprentice utilization requirements.
- ☐ Other: _____(fill in)

Attach a revised Apprentice Utilization Plan showing where adjustments are requested.

Plan Reviewed by: _____
County Staff Name / Title Date

Apprentice Plan Approved: Yes ☐ No ☐

APPRENTICESHIP UTILIZATION GOOD FAITH EFFORT (GFE) & GOAL ADJUSTMENT REQUEST: DOCUMENTATION AND PROCESSING GUIDANCE

Must be submitted with an updated Apprentice Utilization Plan.

The Contractor, and trade subcontractors, must demonstrate that they have exercised "best efforts" to recruit apprentices and were still unable to meet the goal. ***One or more of the following*** rationales apply and are evidenced in this request.

GFE documentation must be submitted to Skagit County as soon as it is known that the apprenticeship requirement cannot be met. Waiting until completion or near completion of the project to submit information is not acceptable; time is of the essence.

Skagit County will review the Contractor's good faith documentation to determine that:

1. The situation/s documented by the contractor represent a legitimate Good Faith Efforts, and
2. The shortfall in apprentice participation is attributable to the situation/s documented by the contractor in the GFE.

ACCEPTABLE GOOD FAITH EFFORTS

□ **NO APPRENTICES AVAILABLE:** The contractor **will document** their prior participation or contact with State-approved apprenticeship training program/s (such as a letter from the program/s or a copy of their current agreement with the program/s); their contacts with the apprenticeship program/s (such as copies of e-mails or letters requesting apprentices and the response from the program/s stating by letter or e-mail that no apprentices are available). On longer duration jobs it is expected the contractor document continued contact with the program/s as the project progresses.

□ **NO APPRENTICESHIP PROGRAM:** In situations where a **large portion of work** on a project is in an occupation without a State-approved apprenticeship program, the contractor must document the fact that there is no State-approved apprenticeship program, (such as a letter from L&I or the Washington State Apprentice Training Council, a printout of the programs on L&I's website or documentation from approved training programs that apprentice training for that specific ***occupation is not available***).

□ **CONFLICTING FEDERAL TRAINING REQUIREMENT:** Federal training requirements take precedence over the State apprenticeship requirement. The contractor must submit documentation demonstrating that Federal requirements are solely responsible for the relief being sought.

□ **APPRENTICE TO JOURNEYMEN RATIOS AND LACK OF AVAILABLE HOURS:** A contractor can document the ratio of journey level to apprentice worker limitations, hours in the job, and total crew size on the project makes it impossible to meet apprenticeship requirements. The contractor must submit documentation of their workforce by each occupation that can be apprenticed, total crew size, supervision level required and the number of apprentices that could be utilized on the project in order to demonstrate that the requirement cannot be met.

□ **APPRENTICE/S GRADUATE DURING PROJECT:** If an apprentice graduates during a project, a Contractor can submit documentation from the apprentice program and evidence of change in worker status.
Estimated hours on the project would not change overall only the apprentice utilization percentage.

□ **WORK TOO TECHNICAL OR PRESCRIPTIVE WARRANTY WORK:** Work performed used on the project is too critical or technical to be performed by apprentices, even when working under the supervision of a journey level worker. In these circumstances, the contractor must document the critical or technical aspect of the work or equipment by demonstrating how rare/uncommon it is, how few employees

are sufficiently skilled to perform or operate the work/equipment, any special training needed to do so, and why it would not be reasonable to provide an apprentice the required training. ***The contractor must also document the portion of the total project hours involved performing this work or operating equipment***. Any further documentation of concurrence from an approved apprenticeship program could supplement a waiver request. Further, if work by an apprentice will compromise or void the warranty provided by a manufacturer or surety, a contractor should provide a letter or communication from the 3rd party responsible for warranty or underwriting.

□ **ADDED OR DELETED APPRENTICE WORK:** If the Owner has made a significant change to the contract that alters the contractor's plan for achieving the apprenticeship requirement, the contractor is encouraged to make reasonable attempts to meet the requirement a different way. The contractor should document the change in total labor hours based on the change to the contract by occupation and demonstrate the effect on apprentice hiring needs as compared to the original utilization plan and efforts made to acquire the additional apprentices.

□ **APPRENTICE WORK CONDITION ISSUES:** If for any reason the contractor has a difficult time finding apprentices that will work on their project due to specific issues (night work, short shifts, irregular work) or an apprentice quits (drops out of program completely or finds a different opportunity) a time lag in getting a new apprentice on site may be a legitimate GFE reason. The contractor will document the date the apprentice began work, the duration of their work, when they quit, when the contractor called the apprentice program or began hiring a new apprentice and when the replacement apprentice arrived at the job site.

□ **SMALL OR ESTABLISHED WORKFORCE:** It is not the intent of apprentice utilization requirements for contractor(s) to have to lay off journeymen or recently graduated apprentices to hire apprentices. In a small or established workforce with little turnover, apprentice opportunities may not exist. This can be a legitimate GFE reason if the contractor can demonstrate that when hiring opportunities do occur, they hire apprentices in State-approved training programs. The contractor must submit evidence showing the individuals on the crew for the project, their duration of employment, if they were hired as apprentices, and whether or not they graduated from a State-approved program. The contractor should also submit a list of recent hires companywide and whether or not they are/were apprentices in a State-approved apprenticeship program.

□ **CLASSROOM TRAINING:** Apprentices must complete a certain amount of classroom training each year. Depending on the program, training could last up to two months. The training could be one continuous period or spread out. If an apprentice must leave the project to attend classroom training, the Owner may consider a reduction in apprentice utilization hours. The contractor must document the number of hours missed by the apprentice due to classroom training. (This is not the number of classroom training hours, but the number of hours they would have been on the job had they not been in classroom training.) Documentation by the instructor or program administrator and its classroom duration/timing is also required.

□ **WORK TOO DANGEROUS:** ***Generally, no work should be too dangerous for apprentices***. If a contractor can demonstrate that work occurs in an area where an apprentice could not be supervised, it may qualify as a GFE. The situation must be documented appropriately with communication from the Apprentice Program, pictures, and other safety considerations.

NOT A GOOD FAITH EFFORT:

CONTRACTOR CANNOT GET THEIR OWN APPRENTICESHIP PROGRAM APPROVED: A contractor cannot
get their own apprenticeship program approved by the State in time to meet the contract requirements.

APPENDIX G

Reports:

Geotechnical Report

Basis of Design Report

Geotechnical Engineering Services

South Osterman Creek Culvert Replacement
Rockport, Washington

for
David Evans and Associates, Inc.

September 17, 2025

554 West Bakerview Road
Bellingham, Washington 98226
360.647.1510

GeoEngineers

Geotechnical Engineering Services

South Osterman Creek Culvert Replacement
Rockport, Washington

File No. 0220-096-03
September 17, 2025

Prepared for:

David Evans and Associates, Inc.
14432 SE Eastgate Way, Suite 400
Bellevue, Washington 98007

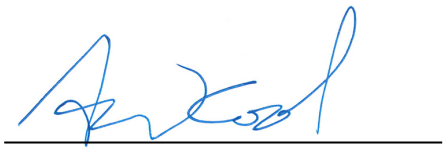
Attention: Mo Sheikhizadeh, PE

Prepared by:

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360.647.1510



Piradeepan Uthayakumar, EIT
Staff Geotechnical Engineer



Sean W. Cool, PE
Principal



AJH:SWC:leh:she:ijm

Disclaimer: Any electronic form, facsimile, or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

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1.0 Introduction and Scope

This report presents the results of our geotechnical engineering services for the proposed South Osterman Creek Culvert Replacement project along Concrete-Sauk Valley Road south of Rockport, Washington. A vicinity map showing the approximate project location is provided in Figure 1. GeoEngineers, Inc. (GeoEngineers) previously completed a preliminary road bank stabilization memorandum for the project for Natural Systems Design, Inc. (NSD), dated September 25, 2018, and design-level geotechnical report for a combined North Osterman and South Osterman culvert replacement project dated October 11, 2021. This report supersedes the previous report and is specific to the South Osterman culvert replacement only. Our services were completed in accordance with the agreement between David Evans and Associates, Inc. (DEA) and GeoEngineers dated March 20, 2025.

One existing 5-foot wide reinforced concrete pipe (RCP) culvert crosses Concrete-Sauk Valley Road at South Osterman Creek, which is a tributary to the Sauk River. This culvert is currently in a perched condition with significant downstream erosion at the culvert outlet. The design team has proposed one new 21-foot-wide concrete splitbox culvert at this crossing to resolve fish passage concerns along with providing channel restoration.

The purpose of our geotechnical engineering services was to complete explorations to evaluate subsurface soil and groundwater conditions as a basis to develop geotechnical recommendations for design and construction of the new culvert. Our scope of geotechnical engineering services included review of existing information, drilling two borings, completing laboratory testing on the samples obtained from the explorations, and providing geotechnical conclusions and recommendations for design and construction of the proposed culvert.

2.0 Site Conditions

2.1 SURFACE CONDITIONS

The site is located on Concrete-Sauk Valley road approximately 12.2 miles southeast of the intersection with South Skagit highway. Concrete-Sauk Valley Road is a low-volume asphalt paved road with little to no shoulder and ditches on either side. The road is approximately 18 feet wide and used for access to local single-family residences and is a northwest-southeast connector on the south side of the Skagit River and west side of the Sauk River. In general, the overall roadway surface is relatively level in the project vicinity.

An existing 60-inch-diameter RCP culvert is located at the South Osterman Creek crossing within the footprint of the proposed replacement culvert. At the time of our site visit in August 2020, we observed water in the creek channel at the proposed culvert location.

The surrounding property is relatively undeveloped with rural single-family residences situated several hundred feet off the roadway and are generally hidden by thick forest and woodlands. Vegetation along the sides of the road consists of small to large deciduous and evergreen trees with shrubs, ferns, and grasses. We observed several cobbles and boulders within the creek channel on either side of the roadway.

2.1 GEOLOGY

We reviewed the "Geologic Map of the Sauk River 30- by 60-Minute Quadrangle, Washington" by R.W. Tabor, dated 2002. The site is mapped as Quaternary age younger valley-bottom alluvial deposits. These deposits are gradational and comprised of alluvial fan deposits which are derived from sediment collected in streams and rivers on hillsides and deposited as the stream loses energy on the valley floor. Alluvial fan deposits typically consist of poorly sorted and poorly stratified diamicton of clayey/silty sandy gravel and gravely sandy silt. Larger debris including cobbles, boulders, and trees may be present in these deposits. Gravel, cobbles, and boulders (up to several feet in diameter) were observed randomly within the existing channel and throughout the historic creek channels.

2.2 SUBSURFACE EXPLORATIONS

Subsurface soil and groundwater conditions were evaluated by drilling two borings at the locations shown in the Site and Exploration Plan, Figure 2. The borings were completed on August 25, 2020 to a depth of 26 feet below the existing ground surface (bgs). The borings were completed adjacent to the roadway on either side of the existing culvert using a specialty drilling contractor subcontracted to GeoEngineers. The approximate locations of the explorations are shown in Figure 2. Details of the field exploration program, laboratory testing, and the boring logs are presented in Appendix A.

2.3 SUBSURFACE CONDITIONS

The soil conditions encountered during site explorations were generally consistent with the mapped geology. The general site soil profile consisted of asphalt surfacing and embankment fill overlying granular and fine-grained alluvial fan deposits within the roadway footprint adjacent to the existing culverts. A cross-section depicting the interpreted subsurface conditions is presented in Figure 3 for South Osterman Creek.

2.3.1.1 FILL/REWORKED NATIVE

Embankment fill or reworked native deposits were encountered at the surface in both borings, B-3 and B-4. The fill/reworked native deposits generally consisted of very loose to medium dense silty fine to coarse sand with gravel to gravel with sand. Scattered organic matter in the form of rootlets and wood fragments were also observed in this layer in B-3. Fill/reworked native deposits were observed to extend to depths of 6 to 9 feet bgs.

2.3.1.2 ALLUVIAL FAN DEPOSITS

Alluvial fan deposits were encountered underlying the fill/reworked native soil at all boring locations and largely consisted of interbedded layers of soft to medium stiff low plasticity sandy silt, loose to medium dense silty sand, and loose to medium dense silty gravel with sand. The soil layers generally ranged from 4 to 7 feet thick and were encountered in every boring. Although not encountered in the borings, cobbles and boulders are expected to be present in this layer. Alluvial fan deposits were observed to extend to the full depth explored of 26 feet bgs in all borings.

2.3.2 Groundwater Conditions

Groundwater seepage, interpreted to be representative of the regional groundwater table, was encountered at the time of drilling at depths of approximately 12 feet bgs (Elevation 283 feet) in borings B-3 and B-4. A zone of wet soil was encountered approximately 10 feet above the observed groundwater level in boring

B-3, interpreted to be a zone of perched groundwater seepage. The borings were not left open long enough for the groundwater to stabilize and no monitoring wells were installed. Our explorations were completed at the end of summer when groundwater would be expected to be lowest. We anticipate that the groundwater level will fluctuate as a function of water level in the adjacent creeks, season, precipitation, and other factors.

3.0 Conclusions and Recommendations

3.1 GENERAL

We conclude that the proposed new box culvert may be supported by conventional shallow footings, provided that the subsurface soil and groundwater conditions expected at the site are considered in planning, design, and construction.

We recommend that the construction conform to the latest version of the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge and Municipal Construction (hereinafter referred to as the "WSDOT Standard Specifications") or the project plans and specifications where differing.

A summary of the site preparation, design, and construction considerations for the proposed project is provided below. This summary is presented for introductory purposes and should only be used in conjunction with the complete recommendations presented in this report.

- Shallow spread footings can be used for foundations and wing walls bearing on medium dense alluvial fan soils. Foundations may be designed in accordance with American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) methods. Recommended bearing resistance values for Extreme, Strength, and Service Limit states are provided.
- On-site fill soil may be considered for reuse provided it meets specifications set forth for suitable structural fill material. Use of these soils will likely require segregation of the oversized material prior to placement.
- Erosion and headcutting was observed at the culvert location. DEA is evaluating stabilization of the creek channel for the proposed culvert and stream profile.

3.2 SEISMIC CONSIDERATIONS

3.2.1 Seismicity

The site is located within the Puget Sound region, which is seismically active. Seismicity in this region is attributed primarily to the interaction between the Pacific, Juan de Fuca, and North American plates. The Juan de Fuca plate is subducting beneath the North American plate. It is thought that the resulting deformation and breakup of the Juan de Fuca plate might account for the deep focus earthquakes in the region. Hundreds of earthquakes have been recorded in the Puget Sound area. In recent history, four of these earthquakes were large events: (1) in 1946, a moment magnitude (Mw) 7.5 earthquake occurred in the Vancouver Island, British Columbia area; (2) in 1949, a Mw 6.7 earthquake occurred in the Olympia area; (3) in 1965, a Mw 6.7 earthquake occurred between Seattle and Tacoma; and (4) the 2001, Mw 6.8 Nisqually earthquake.

Research has concluded that historical large magnitude subduction-related earthquake activity has occurred along the Washington and Oregon coasts. Evidence suggests several large magnitude earthquakes (Mw 8 to 9) have occurred in the last 1,500 years, the most recent of which occurred about 300 years ago. No earthquakes of this magnitude have been documented during the recorded history of the Pacific Northwest. Local design practice in Puget Sound and local building codes now include the possible effect of a very large subduction earthquake and local known faults in the design of structures.

3.2.2 Fault Hazards

Local design practice in Puget Sound and local building codes include the possible effect of local known faults in the design of structures. The site is located approximately 0.5 and 2 miles east of two concealed high angle dip-slip faults which are unnamed. An unnamed concealed thrust fault is located approximately 0.8 miles east of the site. The Straight Creek Fault Zone is located approximately 8 miles east of the site. It is our opinion that the faults represent low risk of ground fault rupture at the project site.

3.2.3 Seismic Zone and LRFD Parameters

We understand that the 2024 10th edition of the AASHTO LRFD Bridge Design Specifications manual will be used to design the replacement culvert. The design earthquake has a 7 percent probability exceedance in 75 years (i.e., a 1,033-year recurrence interval). We recommend the project site be classified as Site Class E based on the subsurface conditions encountered. We recommend the following seismic parameters be used, shown in Table 1, based on the seismic data provided in the AASHTO LRFD manual:

TABLE 1. 2024 AASHTO SEISMIC DESIGN PARAMETERS

PERIOD, T (S)	SPECTRAL ACCELERATION, SA (G)	RISK TARGETED-DESIGN ACCELERATION COEFFICIENT	RISK TARGETED-DESIGN RESPONSE SPECTRAL ACCELERATION (G)
0	0.334	1.007	0.336
0.01	0.335	1.008	0.338
0.02	0.340	1.000	0.340
0.03	0.339	1.011	0.343
0.05	0.361	1.010	0.365
0.075	0.443	1.011	0.448
0.1	0.561	1.016	0.570
0.15	0.687	1.006	0.691
0.2	0.791	1.007	0.797
0.25	0.839	1.000	0.839
0.3	0.883	0.995	0.879
0.4	0.881	1.000	0.881
0.5	0.839	1.004	0.842
0.75	0.677	1.017	0.689
1	0.543	1.036	0.563
1.5	0.403	1.073	0.432

PERIOD, T (S)	SPECTRAL ACCELERATION, SA (G)	RISK TARGETED-DESIGN ACCELERATION COEFFICIENT	RISK TARGETED-DESIGN RESPONSE SPECTRAL ACCELERATION (G)
2	0.306	1.099	0.336
3	0.188	1.144	0.215
4	0.130	1.185	0.154
5	0.094	1.275	0.120
7.5	0.050	1.417	0.071
10	0.032	1.632	0.052

3.2.4 Liquefaction Potential

Liquefaction is a phenomenon where soils experience a rapid loss of internal strength as a consequence of strong ground shaking. Ground settlement, lateral spreading, and/or sand boils may result from liquefaction. Structures supported on liquefied soils could suffer foundation settlement or lateral movement that could be severely damaging to the structures. Conditions favorable to liquefaction occur in loose to medium dense, clean to moderately silty sand, and non-plastic silt that is below the groundwater level. Dense soils/bedrock or soils that exhibit cohesion are generally considered not to be susceptible to liquefaction.

The evaluation of liquefaction potential is complex and is dependent on numerous site parameters, including soil grain size, soil density, site geometry, static stresses, and the magnitude and ground acceleration of the design-level earthquake. We evaluated the liquefaction potential of the saturated alluvial fan deposited soils underlying the site following the methods of Youd and Idriss (2001) and estimated settlement based on two methods (Tokimatsu and Seed 1987; Ishihara and Yoshimine 1992). A design earthquake with a moment magnitude of 6.60 and a peak horizontal ground acceleration (PGA) of about 0.26g was used in the analysis. The design earthquake parameters were developed using published United States Geological Survey (USGS) hazard “deaggregation” associated with an earthquake event with a 975-year mean return time.

Our explorations did not extend to sufficient depth to complete a liquefaction analysis for the full soil profile. Based on the blow counts obtained in our explorations, our analysis indicates that a portion of the saturated alluvial fan deposits consisting of sand and sandy silt have a moderate to high potential for liquefaction during the design earthquake. Based on our analysis and experience in the area, we estimate the liquefaction induced settlement in the alluvial fan layer could be on the order of about 4 to 8 inches following a design-level seismic event. Differential settlement on the order of one-half to two-thirds of the total settlement should be assumed over relatively short distances of 30 to 50 feet, or on the order of 2 to 6 inches following a design event. This magnitude of total and differential settlement could result in deformation or damage to the roadway embankment and box culvert structure.

The design and construction procedures discussed in this report will not mitigate the possible liquefaction effects and associated damage to the roadway and box culvert structure caused by differential settlements. In order to minimize the risk of potential damage from liquefaction from a large design event, it would be necessary to support the embankment and box culvert on piles or improve the ground such that the soils below the roadway corridor do not liquefy. However, in our experience, measures have not been undertaken

to mitigate the liquefaction potential for similar non-critical roadway infrastructure because of the significant expense. We anticipate that utilizing a box culvert with a full base invert in conjunction with foundation subgrade preparation and foundation material placement as discussed in Section 3.3 of this report will provide some resistance to differential liquefaction settlement impacts. The planned rigid concrete box culvert with mat foundation can be designed to span anticipated differential settlements.

3.3 SHALLOW FOUNDATION RECOMMENDATIONS

3.3.1 General

We understand the proposed culvert for the South Osterman Creek Crossing will consist of a rigid concrete split box culvert. The proposed internal channel clear span widths is 21 feet with inverts at approximately Elevation 278.90 feet (North American Vertical Datum of 1988 [NAVD88]). The culvert will have a minimum internal height of approximately 12.75 feet for the South Crossing and minimum cover over the top of the culvert of greater than 2 feet. In preparing our foundation recommendations, we reviewed the preliminary plan prepared by NSD and DEA. Based on details in the plans, and experience on similar projects, the following are presumed for this project at this time:

- The culvert structure is a rigid split box concrete culvert with a full base invert. Based on previous project experience, the functional bearing width of the full base invert split box concrete culvert is approximately the invert structure width plus the thickness of the culvert side walls which are generally 7 to 12 inches thick.
- The base of the box culvert for the South Crossing will be founded at approximately Elevation 278 feet (NAVD88), approximately 18 feet bgs.
- A layer of foundation support material is to be placed below the culvert as described in Section 3.3.2 below.

Based on the conditions encountered in the explorations, it is our opinion that the proposed box culvert can be supported on shallow foundations supported by the native alluvial fan deposits. The planned culvert elevation and streambed backfill material was determined by DEA considering scour depth for the box culvert. It is our understanding that scour protection will be provided by installing concrete wing walls on the upstream and downstream sides of the box culvert and by placing and compacting at least 4 feet of streambed mix along the entire length of the channel.

3.3.2 Foundation Subgrade Preparation

We anticipate that the planned foundation will be constructed on the alluvial fan deposits consisting of loose to medium dense silty sand and gravel or soft to medium stiff sandy silt. The subgrade soils at the foundation depth are moisture sensitive. Construction traffic and even foot traffic required to place the culvert will be difficult without a layer of foundation material where silty subgrade conditions are present. Dewatering may be required at the base of the excavation as discussed in Section 3.5 of this report. We recommend that the foundation support consist of the following:

- A foundation material layer consisting of a minimum of 12 inches crushed rock product such as crushed surfacing base course (CSBC) per WSDOT Standard Specification 9-03.9(3) or permeable ballast per WSDOT Standard Specification 9-03.9(2). Permeable ballast will likely be more easily and rapidly placed during construction if the subgrade is fine-grained and wet. Additional foundation material

thickness may be required if the subgrade is soft (discussed below) or if rubber tire equipment or heavy track equipment is anticipated to be used in the base area during construction.

- Woven fabric for stabilization with a minimum 250-pound tensile strength in accordance with ASTM International (ASTM) D 4632 (Mirafi HP370 or equivalent) placed over the native silty sand and silt subgrade. Placing geotextile fabric over the fine-grained subgrade soils prior to placement of the structural fill will aid compaction, especially if the subgrade is fine-grained and wet of optimum moisture content. The fabric should extend a minimum of 1 foot beyond the edges of the split box culvert foundation. It may be feasible to delete this layer during construction if the subgrade consists entirely of granular soils that are properly dewatered.

Based on our explorations, some additional overexcavation of about 1 to 2 feet could be required at the base of the excavation to properly support the planned structure if excessively soft, organic or otherwise unsuitable soils are encountered at the subgrade elevation. We recommend a contingency for this overexcavation be included in the bid. Overexcavation should extend 1 foot laterally beyond the edges of the foundation, or a minimum lateral distance equivalent to one-half the depth of excavation below the base of foundation, whichever is greater.

We recommend that the condition of all shallow foundation excavations be observed by a representative of GeoEngineers to evaluate whether the work is completed in accordance with our recommendations and whether the subsurface conditions are as expected.

3.3.3 Shallow Foundation Bearing Capacity

The proposed box culvert and wing wall structures will be designed with the criteria of the 2022 WSDOT Geotechnical Design Manual (GDM) in conjunction with the 2024 (10th Editions) AASHTO LRFD Bridge Design Specifications. We recommend the following resistance parameters in Table 2 below be used for design of the structure.

TABLE 2. LRFD SHALLOW FOUNDATION RESISTANCE FACTORS[1]

LIMIT STATE	RESISTANCE FACTOR		
	SHEAR RESISTANCE TO SLIDING	BEARING	PASSIVE PRESSURE RESISTANCE TO SLIDING
Strength	0.9[2]	0.45	0.5
Service	1.0	1.0	1.0
Extreme and Post-Seismic	1.0	0.9[3]	1.0

Notes:

[1] According to 2024 AASHTO LRFD Bridge Design Specifications Table 10.5.5.2.2-1.

[2] Assuming Cast in Place (CIP) concrete structures.

[3] According to WSDOT GDM Section 8.10.2.

For concrete split box culvert supported on foundation material as described in Section 3.3.2, the bearing capacities for shallow culvert foundations for Extreme, Post-Seismic (temporary residual soil strength), Strength, and Service Limit loading states are presented in Table 3 below. The bearing capacities listed in Table 3 have been factored by the corresponding bearing resistance factor listed in Table 2 above and include the effect of footing embedment of approximately 5 feet below grade. The bearing capacities are presented in units of kips per square foot (ksf).

TABLE 3. LRFD FACTORED BEARING RESISTANCE FOR SHALLOW FOUNDATIONS

FOUNDATION WIDTH (FEET)	FACTORED BEARING RESISTANCE (KSF)				
	EXTREME LIMIT	POST-SEISMIC LIMIT	STRENGTH LIMIT	SERVICE LIMIT, RESULTING IN 1½-INCH DEFLECTION	SERVICE LIMIT, RESULTING IN 2-INCH DEFLECTION
18	16.4	1.2	8.2	1.5	2.0
20	17.2	1.2	8.6	1.4	1.8
22	18.0	1.3	9.0	1.3	1.7
24	18.7	1.3	9.4	1.2	1.6
26	19.4	1.3	9.7	1.2	1.6

3.3.4 *Lateral Resistance for Shallow Foundations*

Lateral foundation loads may be resisted by passive soil pressures on the sides of the buried foundation element and by friction on the bases of the foundation. For a shallow foundation supported in accordance with our recommendations, the ultimate frictional resistance may be computed using a coefficient of sliding of 0.40 applied to vertical dead-load forces.

The passive resistance of backfilled soils may be computed using a passive earth pressure coefficient, K_p, of 3.54 as presented in Table 4 in the following section. This value is suitable for properly placed and compacted structural fill against the precast structure and that structural fill is compacted to at least 90 percent of the maximum dry density (MDD) in accordance with ASTM D-1557. A buoyant unit weight should be considered where groundwater is above the bottom of the foundation.

3.3.5 *Settlement*

The estimated post-construction settlement of shallow foundations is based on the selected bearing capacity at the identified Service Limit states. We have provided in Table 3 the bearing resistances estimated to produce 1½ and 2 inches of settlement of the proposed shallow foundation. We anticipate the soils will behave elastically, and that settlement will occur rapidly as loads are applied.

Based on our understanding of the proposed culvert geometry, presence of limited fill over the culvert, and no planned construction of a concrete approach slab or apron, we anticipate some risk of differential settlements developing between the culvert structure and placed backfill abutments. We recommend that a single layer of biaxial geogrid, such as Tensar BX1200, Mirafi BXG120 or equivalent, be placed to span the box culvert and backfill to help mitigate the potential formation of a crack at this location. The geogrid layer will provide additional rigidity and better distribution of displacements during the lifetime of the structure. At minimum, a continuous run of geogrid should extend 10 feet in both directions from the interface between the culvert wall and backfill.

3.4 RETAINING WALL DESIGN CONSIDERATIONS

We understand that the box culvert side and possibly wing walls will be constructed as pre-cast concrete walls. We anticipate wing walls will be constructed at 45- or 90-degree angles to the box culvert.

3.4.1 Earth Pressures and Lateral Resistance

We recommend that retaining walls backfilled with structural fill be designed using the parameters shown below in Table 4 below to determine active earth pressures and lateral resistance. The earth pressure values presented in Table 4 are unfactored values.

TABLE 4. LATERAL EARTH PRESSURES AND SOIL PARAMETERS FOR CIP RETAINING WALLS

PARAMETER	VALUE
Backfill Soil Unit Weight (unsaturated/saturated), γ	125/63 pcf
Backfill Soil Friction Angle, ϕ	34 degrees
Foundation Soil Unit Weight (unsaturated/saturated), γ	120/58 pcf
Foundation Soil Friction Angle, ϕ	29 degrees
Backfill Active Earth Pressure Coefficient, K_a	0.28
Backfill Active Earth Pressure, Unsaturated [1]	35 pcf
Backfill Active Earth Pressure, Saturated [1]	17 pcf
Backfill Active Seismic Earth Pressure Coefficient K_{ae}	0.360
Backfill At-Rest Static Earth Pressure Coefficient K_o	0.440
Horizontal Traffic Surcharge Wall Pressure [2,3]	70 psf
Backfill Passive Earth Pressure Coefficient, K_p	3.54
Backfill Soil Passive Earth Pressure [1] – Unfactored, Level Toe Slope, Saturated	136 pcf
Foundation Soil Passive Earth Pressure Coefficient, K_p	2.88
Foundation Soil Passive Earth Pressure [1] – Unfactored, Level Toe Slope, Saturated	111 pcf

Notes:

[1] Equivalent Fluid Density – triangular pressure distribution

[2] Rectangular pressure distribution

[3] Assumes 250 psf vertical traffic surcharge and active earth pressure coefficient, K_a

pcf = pounds per cubic foot

psf = pounds per square foot

For all retaining/wing walls, we recommend the wall subgrade soils be prepared in a similar manner as the recommendations provided for the shallow foundations in Section 3.3.2 of this report. If it is anticipated that there will be heavy construction equipment near the top of the wall, the additional temporary loading should be taken into consideration for design. Adequate drainage provisions should be included in the wall design, as discussed in the following section. Earth pressures for other surcharge loads should be evaluated on a case-by-case basis. Retaining walls should be embedded a minimum of 18 inches below the future site grade.

The recommended equivalent fluid density earth pressures presented above are based on the assumption that fill behind the walls is placed and compacted as recommended herein. Overcompaction of fill placed directly behind retaining walls should be avoided. We recommend use of hand-operated compaction equipment and maximum 6-inch loose lift thickness when compacting fill within about 5 feet of abutment/wing walls. Compaction should be in the range of 90 to 92 percent of the MDD within this zone.

Assuming that some scour is likely, it is reasonable to assume very small passive soil pressure on the exposed face of wing walls. If wing wall footings are founded below scour depth, the passive earth pressure coefficients presented in Table 4 above may be used for the portion of the wall footing permanently embedded below scour depth. Frictional resistance may be evaluated using an ultimate frictional resistance at the base of the footing of 0.40 applied to vertical dead-load forces as discussed for foundations.

3.4.2 Wall Drainage Considerations

It is possible that shallow perched groundwater seepage will build up behind the culvert sides and wingwalls. A drainage system should be constructed to collect water and prevent the buildup of hydrostatic pressure against wing walls or the wall designed to resist unbalanced hydrostatic forces. We recommend these drainage systems include a zone of free-draining backfill that has a minimum of 2 feet in width against the back of the wall. Free draining backfill should conform to WSDOT Standard Specification 9-03.12(2), Gravel Backfill for Walls, or other approved free draining material. If fine-grained soils are used for retaining wall backfill, a construction geotextile for underground drainage, moderate survivability, conforming to Section 9-33 of the WSDOT Standard Specifications should be placed between the gravel drainage backfill and the remaining wall backfill soils to prevent movement of the soils into the drainage backfill. The backfill zone should be drained with weep holes at the base of the wall, a drainpipe or some combination of the two. If weepholes are used, provisions should be incorporated to prevent migration of the backfill through the weepholes. The drainpipe should consist of a perforated rigid, smooth walled pipe with a minimum diameter of 4 inches and should be placed along the base of the wall within the free draining backfill, extending the entire wall length. The drainpipe should be metal or rigid polyvinyl chloride (PVC) pipe and be sloped to drain by gravity. Discharge should be routed properly to reduce erosion potential.

3.5 DEWATERING CONSIDERATIONS

As discussed in Section 2.3.2, we encountered groundwater at approximately Elevation 283 feet at South Osterman at the time of drilling. Based on invert elevations of 278 feet, we would anticipate excavation will extend to approximately 276 feet at South Osterman, or slightly deeper if overexcavation of unsuitable soil is required. Based on these elevations we recommend that a dewatering plan be developed for the culvert location. South Osterman may require lowering groundwater levels on the order of 5 to 6 feet.

We anticipate that the water level will be lowest during the dry summer months; however, we do not have data to suggest that the groundwater level will definitively drop below the excavation depths for this project. We expect that this project will be completed during the dry summer months, which correspond to the fish window when the groundwater elevation is at or near the seasonal low, which will minimize dewatering costs.

The dewatering measures necessary for excavation and installation of the culvert will be dependent upon the time of construction, construction staging, length of time and the size of excavations that will remain open, soil type, groundwater level and other factors. In our opinion, the contractor should be responsible for designing and installing the appropriate dewatering system needed to complete the work based on the proposed construction techniques. Any dewatering system should include provisions for disposal/discharge of the collected water in accordance with applicable regulations.

Excavation to the culvert base and bottom of foundation material could require lowering groundwater levels by at least 5 to 6 feet. We also recommend that active dewatering be accomplished as necessary to stabilize the base of the proposed culvert and wingwall footings. In this case, we recommend that the groundwater be drawn at least 1 foot below the base excavation elevation so that the foundation material placement can occur in the dry.

3.5.1 Review of Typical Dewatering Methods

3.5.1.1 OPEN PUMPING

This dewatering method involves removing water that has seeped into the excavation by pumping from a sump that has been excavated at one end of the excavation or trench (or a series of sumps along a trench). This dewatering method is appropriate if groundwater levels only need to be lowered nominally and will not be appropriate if water levels need to be lowered more than a few feet. We recommend this method not be used as the primary dewatering method if excavation is completed during the wet season when water levels may be higher, and only be used if groundwater monitoring confirms that seasonal low water levels will only need to be lowered nominally to the foundation elevation.

3.5.1.2 PUMPED WELLS

Pumped dewatering wells are generally most effective in relatively clean sand and gravel layers; however, the effectiveness at this location may be limited by interspersed silt layers and elevated silt content in the encountered sand and gravel. Pumped wells that have been properly installed and developed in highly permeable sand deposits are capable of producing the high discharge rates that are necessary to dewater broader areas. Pumped wells are generally the most effective dewatering method in areas where the permeability is moderate to high and dewatering to deeper than about 10 feet below the ground surface is necessary.

We recommend that all dewatering wells installed for this project be properly designed and developed to remove fine sediment from the immediate vicinity of the well screens. Proper development is essential for producing efficient wells and greatly reduces the turbidity of the water discharged from the well. Appropriate filter packs should be installed around the well screens.

3.5.1.3 WELLPOINTS

Vacuum wellpoints are effective for dewatering most types of soils, whether pumping small amounts of water from silt or large quantities of water from coarse sand and gravel, as long as the system is designed and installed with sufficient pumping and vacuum capacity. The volume of water generated by a wellpoint system is typically less than the volume generated by a corresponding system of pumped wells because the wellpoints are generally completed at a shallower depth. Because of the shallower completion depth, the volume of aquifer that contributes water to a wellpoint system is less than for a comparable deep well system. A vacuum wellpoint system would be effective to dewater the depth of culvert installation for this project.

The wellpoints would likely need to be installed on 10-foot centers or less (typically 4 to 8 feet) to be effective and as close as possible to the edge of the excavation. The wellpoint screens should be appropriately filter packed to improve pumping efficiency and minimize the discharge of turbid water. Wellpoints must be sealed to a depth of at least 3 feet with hydrated bentonite chips forming a surface seal

to encourage the development of a partial vacuum around each wellpoint. It has been our experience that the vacuum associated with wellpoints also increases stability of the excavation sidewalls.

3.5.2 Pre-drainage Schedule

The maximum drawdown of the water table in the immediate vicinity of pumped wells or wellpoints is often achieved several hours after the start of pumping. However, complete dewatering of the saturated zone within the cone of depression may require several days. This lag reflects the time it takes for vertical drainage of water stored in the saturated zone. We recommend pumping from wells or wellpoints 2 to 3 days prior to excavating to permit vertical drainage of the aquifer. Any dewatering system should include provisions for disposal of the collected water in accordance with applicable regulations. The contract documents should require that the dewatering system be installed and functioning prior to beginning excavation where active dewatering is expected.

As previously discussed, we recommend that the groundwater level be drawn down a minimum of 1 foot below the base excavation of the foundation material elevation prior to excavation to stabilize the base. Excavation that is attempted before groundwater levels are fully drawn down will risk creating a disturbed subgrade with running sands, sloughing and potential for heave or boils that could disrupt the integrity of the subgrade soils. Any extra foundation material required by the contractor to stabilize the base because of the lack of dewatering should be at the contractor's expense.

3.5.3 Dewatering Qualifications and Experience

We recommend that dewatering be performed by a contractor or subcontractor with dewatering experience. Because it will be necessary to use pumped wells or wellpoints for the bottomless culvert installation, we recommend an experienced dewatering specialist contractor with competent and experienced staff.

Because active dewatering using wells or wellpoints will be required for this project, we recommend a Temporary Dewatering Plan be required as a submittal from the contractor for design team and County review prior to beginning dewatering. The Temporary Dewatering Plan should fully describe the dewatering approach, including material and equipment specifications, calculations and supporting assumptions to ensure that dewatering is achieved. The Dewatering Plan should be prepared by or under the direct supervision of a Professional Engineer or Licensed Hydrogeologist registered in the State of Washington and having at least 5 years of demonstrated experience in the design and operation of pumped wells or vacuum wellpoint dewatering systems.

3.5.4 Dewatering Limitations

Our services were provided to assist in the assessment of construction dewatering requirements for a planned culvert foundation and retaining wall excavation to be constructed in part beneath the water table. Our dewatering recommendations are based on evaluation of the geotechnical information described herein. Groundwater can create a safety threat and can seriously compromise arrangements for shoring excavations. The design of shoring and dewatering components for the project should, therefore, be required to demonstrate that they have been developed in full collaboration with each other.

3.6 PAVEMENT RECOMMENDATIONS

It is our understanding that Skagit County standards will govern the pavement design for the roadway per Rural Area Roadway Design Standards and that the road is classified as a Rural Minor Collector. DEA is

developing the pavement section thicknesses based on Skagit County Standards. We recommend that the pavement section consist of the following layers:

- Hot Mix Asphalt (HMA) surface course per the WSDOT Pavement Policy. The surface course should consist of HMA, Class ½ inch, PR 58H-22 per the most recent WSDOT Standard Specifications 5-04 and 9-03.8.
- Top course consisting of crushed surfacing top course (CSTC) per WSDOT Standard Specifications 9-03.9(3) and/or base course consisting of crushed surfacing base course (CSBC) per WSDOT Standard Specifications 9-03.9(3).
- Gravel base consisting of gravel borrow per WSDOT Standard Specifications 9-03.14(1) to provide subgrade support and drainage. We recommended that the fines content of the gravel base be limited to 5 percent material passing the U.S. No. 200 sieve.

3.6.1 Construction Considerations

The pavement will be reconstructed after culvert installation.

- Based on the current performance of the roadway, the subgrade conditions anticipated for reconstruction of existing roadway footprint will provide adequate support for the new pavement section. If significant fine-grained material is encountered at the roadway subgrade, we recommend replacement with free-draining gravel base as described above.
- We recommend that the subgrade be compacted and proof-rolled during dry weather to identify loose/soft subgrade areas prior to placement of crushed surfacing. Areas that do not respond to compaction may require overexcavation. Overexcavation should be monitored by the field engineer. Overexcavation of 1 to 2 feet is typically adequate to achieve firm gravel base layer. We recommend that an allowance be included in the bid for overexcavation and replacement of unsuitable subgrade soils.

3.6.2 Recycled Products

Removal of the existing pavement will generate quantities of asphalt concrete. This material may be recycled and used in the proposed pavement section, provided they meet the specifications provided in the WSDOT Standard Specifications, sections 9-03.8(3)B, 9-03.21(1)A, 9-03.21(1)E, and 5-04.2.

3.7 EARTHWORK

Excavations will extend through any roadway fill and into native alluvial fan deposits consisting of loose to medium dense silty gravel with sand, sand with gravel and sandy silt. Any new channels will also be excavated primarily into the alluvial fan deposits based on our field reconnaissance. Some cobbles and boulders were observed during our site visit and will likely be encountered during foundation excavation. Smaller equipment including regular backhoes will have a difficult time handling the anticipated oversized material if encountered. Therefore, we suggest that the contractor plan on using large horsepower tracked excavators with thumb attachments to excavate the oversized material more efficiently.

3.7.1 Subgrade Preparation

Subgrade soils are expected to consist of alluvial fan deposits. The silty sand and gravel and finer-grained sandy silt alluvial fan deposits will not provide good trafficability during periods of wet weather. In isolated areas, overexcavation of subgrade soils and replacement with structural fill as described below may be appropriate to support construction traffic during wet weather construction. We provide the following subgrade preparation recommendations:

- The exposed subgrade soils should be compacted to a uniformly firm and non-yielding condition in all areas for support of the new culvert and wing wall foundations and the new pavement section. The subgrade should be compacted to at least 95 percent of the MDD based on ASTM D 1557 test procedure.
- Non-yielding condition of the subgrade can be confirmed by thoroughly proof-rolling with heavily loaded rubber-tired construction equipment and/or evaluated by probing. The proof-rolling and probing should be observed by one of our geotechnical engineers, who will evaluate the subgrade and make recommendations for overexcavation and/or remediation where necessary.
- If soft, loose or otherwise unsuitable soil areas are observed during compaction and/or proof-rolling, excavation to firm soil or to 2 feet below the original ground surface or final subgrade elevation, or as otherwise recommended by the geotechnical engineer's representative should be accomplished. The overexcavated material should be replaced with structural fill in accordance with recommendations provided in Section 3.7.4.

3.7.2 Temporary Excavations

We anticipate that foundation excavations through the existing site soils will have a tendency to cave and ravel unless shoring is provided. All excavations and other construction activities must be completed in accordance with applicable county, state and federal safety standards. Regardless of the soil type encountered in the excavation shoring, trench boxes or sloped sidewalls will be required for excavations deeper than 4 feet under Washington State Administrative Code (WAC) 296-155, Part N. We expect that most of the culvert excavations will be made as open cuts in conjunction with the use of a trench box and/or sloped sidewalls for shielding workers. For planning purposes only, the existing fill and alluvial fan deposits are classified as "Type C" soil. The regulations allow temporary slopes for this condition up to 1.5H:1V (horizontal:vertical).

The above regulations assume that surface loads such as construction equipment and storage loads will be kept a sufficient distance away from the top of the cut so that the stability of the excavation is not affected. In order to maintain the stability of the cut flatter slopes and/or shoring will be necessary for those portions of the excavations which are subjected to significant seepage. Temporary slopes in wet/saturated sand will be susceptible to sloughing, raveling and "running" conditions. It should be expected that unsupported cut slopes will experience some sloughing and raveling if exposed to surface water. Berms, hay bales or other provisions should be installed along the top of the excavation to intercept surface runoff to reduce the potential for sloughing and erosion of cut slopes during wet weather.

In our opinion, the contractor will be in the best position to observe subsurface conditions continuously throughout the construction process and to respond to the variable soil and groundwater conditions. Construction site safety is generally the responsibility of the contractor, who also is solely responsible for the means, methods, and sequencing of the construction operations and choices regarding temporary

excavations and shoring. We are providing this information only as a service to our client. Under no circumstances should the information provided below be interpreted to mean that GeoEngineers, Inc. is assuming responsibility for construction site safety or the contractors' activities; such responsibility is not being implied and should not be inferred.

3.7.3 Permanent Slopes

We recommend that permanent fill slopes for embankments be constructed no steeper than 2H:1V. Steeper slopes may be feasible but would require special construction materials (permeable ballast, quarry spalls, or geosynthetic reinforcement) and surfacing to create a stable and erosion resistant slope.

To achieve uniform compaction, we recommend that fill slopes be overbuilt slightly and subsequently cut back to expose properly compacted fill. We recommend that the finished slope faces be compacted by track walking with the equipment running perpendicular to the slope contours so that the track grouser marks help provide an erosion-resistant slope texture.

3.7.4 Structural Fill

We anticipate that the use of structural fill on the site will be limited to backfilling against culvert sides and wing walls, around footing excavations and the approach embankments. All fill placed on the site should be placed and compacted as structural fill. All structural fill material should be free of organic matter, debris, and other deleterious material. The maximum particle size diameter for structural fill should be the lesser of either 6 inches or one half of the loose lift thickness.

As the amount of fines (material passing the U.S. No. 200 sieve) increases in a soil, it becomes more sensitive to small changes in moisture content and during wet conditions, adequate compaction becomes more difficult to achieve. Generally, soils containing more than about 5 percent fines by weight cannot be properly compacted when the moisture content is more than a few percent from optimum.

3.7.4.1 SUITABILITY OF ON-SITE SOIL

The on-site soils include fill and native soils consisting of silty sand to sandy silt and mixed sand and gravel with silt to trace silt. Some cobbles and boulders were observed in the alluvial fan deposits during our site visit. Use of the alluvial fan soils will require segregation of the oversized material (greater than 6 inches) prior to placement and compaction. At the time of our explorations, the moisture content of the sandy silt material was above the optimum moisture content for compaction which may make placing this material challenging in wet weather conditions. However, the moisture content of the on-site mixed sand and gravel materials was near or below the optimum moisture content for compaction and may require moisture conditioning to achieve recommended compaction. We recommend that only the on-site fill and mixed sand and gravel materials be considered suitable for use as structural backfill during both wet and dry seasons after oversized material is removed.

3.7.4.2 SELECT IMPORT FILL

Import fill, where required, should conform to the general recommendations provided above. To reduce extra costs and delays during construction, we suggest that imported soil used during periods of wet weather consist of a select import sand and gravel with a fines content of less than 5 percent based on that portion passing the ¾-inch sieve and at least 30 percent gravel (retained on the U.S. No. 4 sieve).

3.7.4.3 FILL PLACEMENT AND COMPACTION CRITERIA

Structural fill should be mechanically compacted to a firm, non-yielding condition. The appropriate lift thickness will depend on the material and the compaction equipment being used. Loose lift thicknesses of 8 to 12 inches are typical when using heavy self-propelled vibratory equipment. Each lift must be thoroughly and uniformly compacted. Each lift should be conditioned to the proper moisture content and compacted to the specified density before placing subsequent lifts. Structural fill should be compacted in accordance with WSDOT Standard Specifications Section 2-03.3(14) C, Method B. Alternatively, structural fill should be compacted to the following criteria:

- Where existing vertical or near vertical slopes/scarps are encountered, the new fill slopes should be benched horizontally to integrate the new structural fill with existing soils and facilitate access for compaction equipment.
- Structural fill placed behind precast concrete retaining walls should be compacted to at least 90 percent of the MDD determined in general accordance with ASTM D 1557. Care should be taken when compacting fill near the face of retaining walls to avoid overcompaction and hence overstressing the walls.
- Structural fill in the creek bed and new pavement areas, including utility trench backfill, should be compacted to 90 percent of the MDD (ASTM D 1557), except that the upper 2 feet of fill below final subgrade should be compacted to 95 percent of the MDD (ASTM D 1557).
- Structural fill placed below culvert and wingwall foundations should be compacted to 95 percent of the MDD (ASTM D 1557).
- Structural fill placed as crushed surfacing base course below pavements should be compacted to 95 percent of the MDD (ASTM D 1557).
- In non-settlement sensitive areas, such as landscape areas, we recommend that the backfill be compacted to at least 85 percent of its MDD.

3.7.5 Wet Weather Earthwork

In addition to the wet weather considerations discussed in Sections 3.7.1 and 3.7.4.1, general recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. These recommendations should be incorporated into the contract specifications.

- Soil stockpiles should be covered with plastic sheeting if wet weather conditions are anticipated.
- Silt fences should be installed between the work area and sensitive areas to prevent transport of sediment beyond the work area.

4.0 Limitations

We have prepared this report for the exclusive use of Skagit County, David Evans and Associates, and their authorized agents for the proposed South Osterman Creek Culvert Replacement project near Rockport, Washington.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to the appendix titled Report Limitations and Guidelines for Use for additional information pertaining to use of this report.

5.0 References

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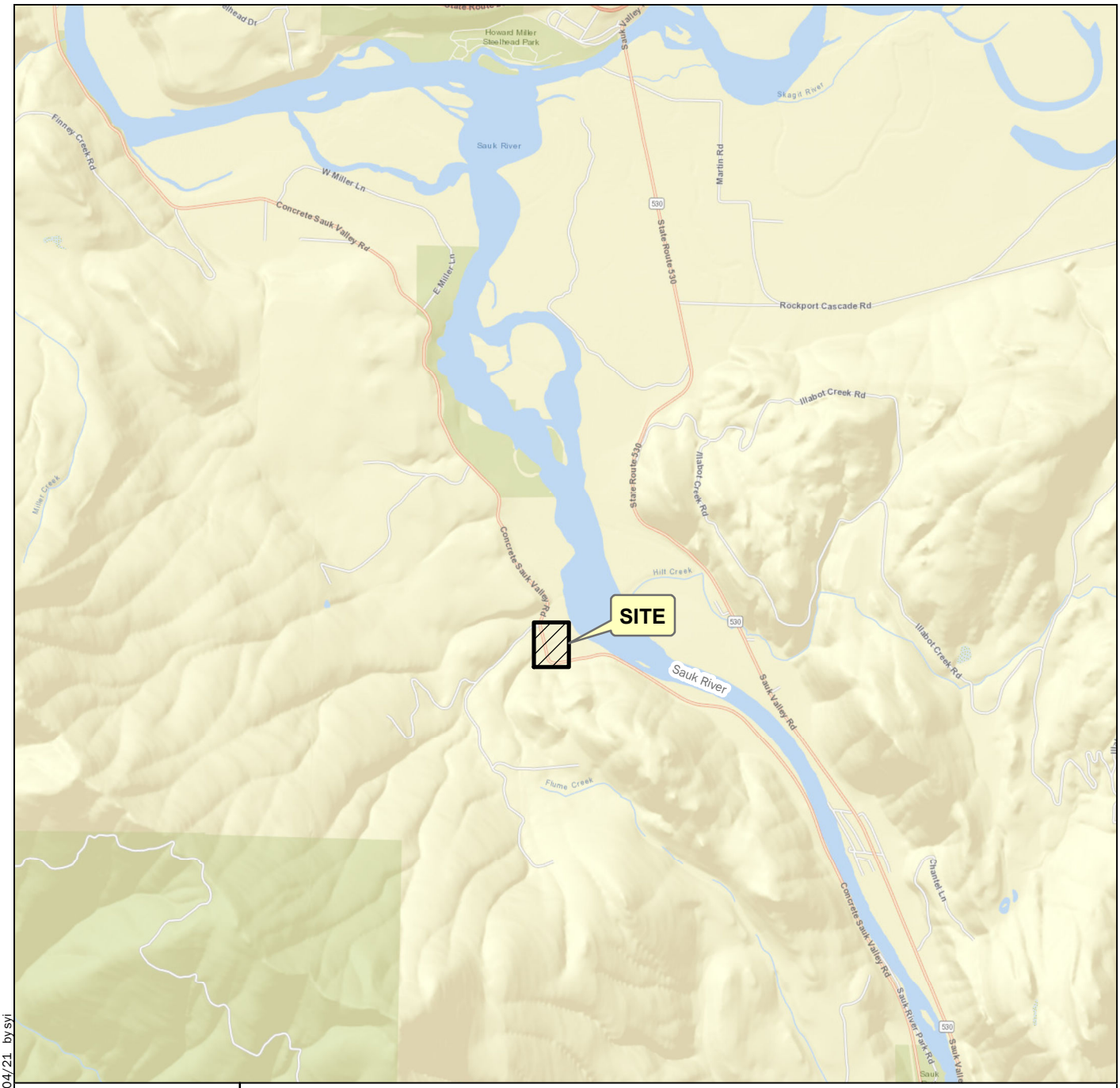
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Figures





N
W E
S

4,000 0 4,000

Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

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Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

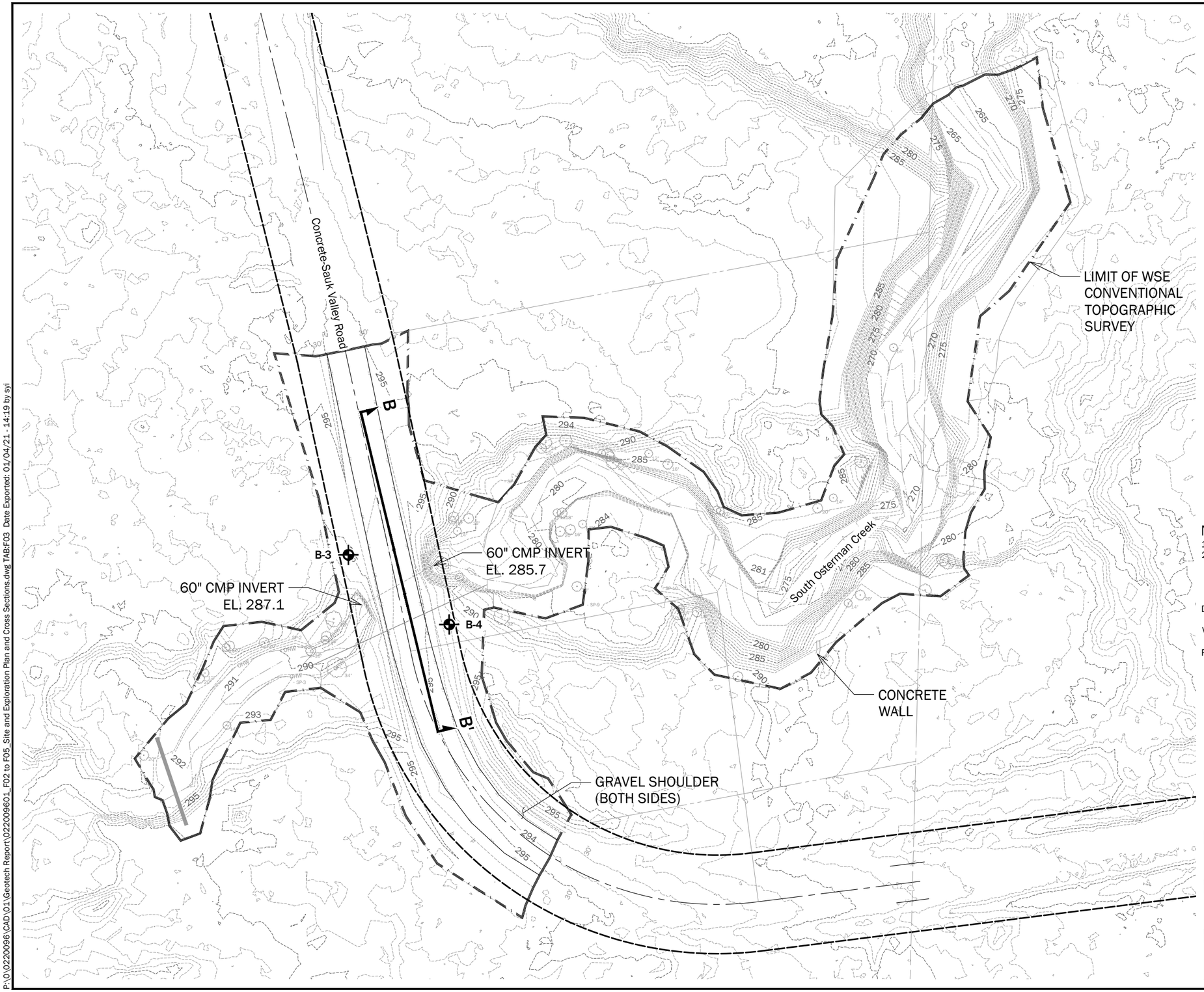
Vicinity Map

South Osterman Creek Culvert Replacement
Rockport, Washington

GeoEngineers

Figure 1

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Legend

B-3 Boring by GeoEngineers, Inc., 2020

B B' Cross Section Location

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Background from Wilson Engineering dated 08/20/20.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

N W E S

60 0 60
Feet

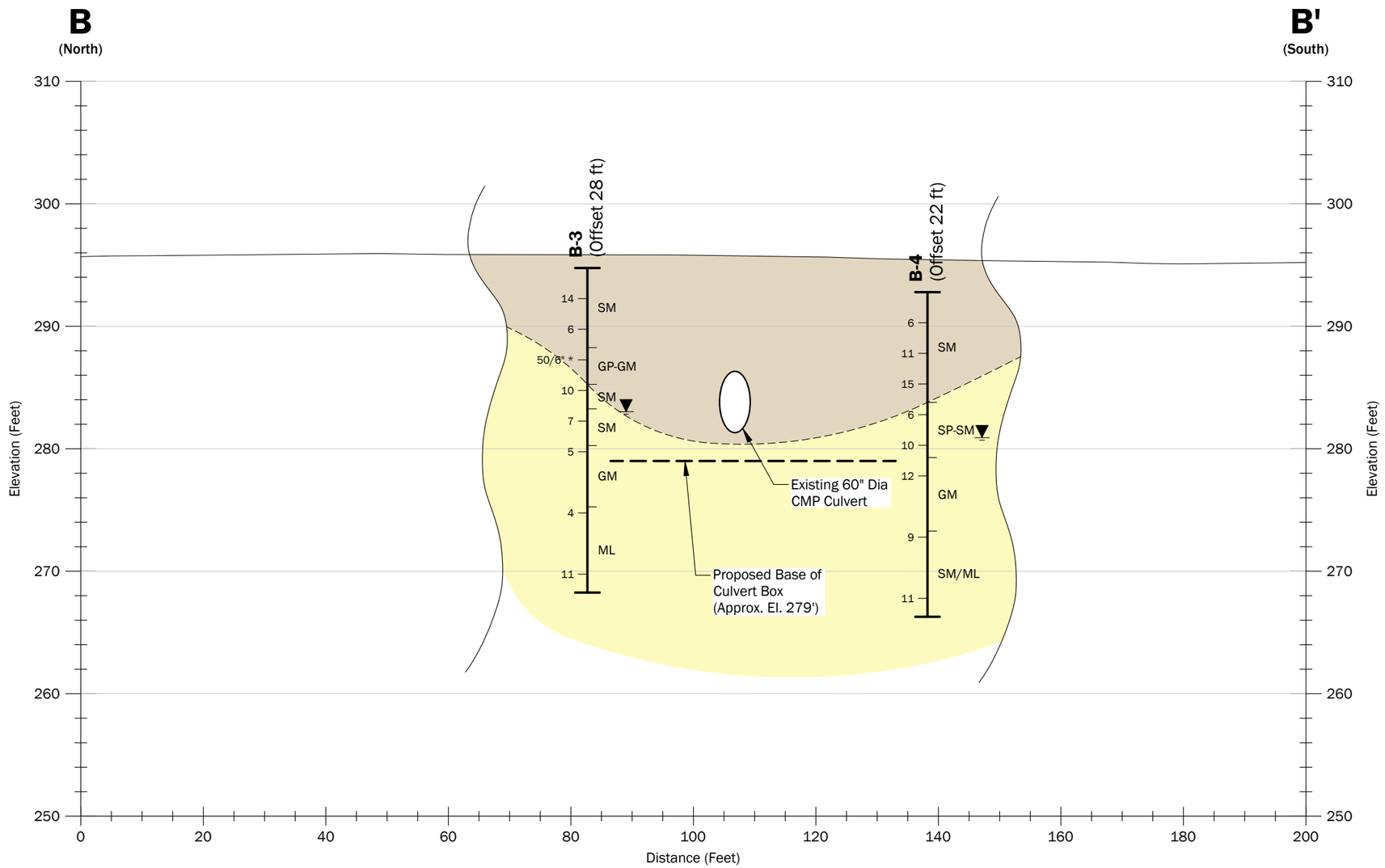
Site and Exploration Plan

South Osterman Creek Culvert Replacement
Rockport, Washington

GeoEngineers

Figure 2

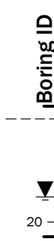
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Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Datum: NAVD 88, unless otherwise noted.



Legend

- Boring
- Inferred Soil Contact
- USCS Soil Classification
- Groundwater at time of Drilling
- Field SPT Blow Count
- Fill/Reworked Native
- Alluvial Fan Deposits

20 0 20
Horizontal Scale in Feet

10 0 10
Vertical Scale in Feet
Vertical Exaggeration: 2X

Cross Section B-B'

South Osterman Creek Culvert Replacement
Rockport, Washington

GeoEngineers

Figure 3

P:\0\0220096\CAD\01\Geotech Report\022009601_F02 to F05_Site and Exploration Plan and Cross Sections.dwg TAB:F05 Date Exported: 01/04/21 - 14:22 by syi

Appendices

Appendix A
Field Explorations and Laboratory Testing

Appendix A
Field Explorations and Laboratory Testing

FIELD EXPLORATIONS

Subsurface conditions at the site were explored by completing two geotechnical borings (B-3 through B-4) on August 25, 2020. Borings were completed to depths of 26.5 feet below the existing ground surface (bgs) using a tracked drilling rig subcontracted to GeoEngineers. The locations of the explorations are shown in the Site and Exploration Plan (Figure 2). The locations of the explorations were determined by recreational global positioning system (GPS), taping and measuring from existing site features. The locations shown in Figure 2 should be considered accurate to the degree implied by the method used.

Disturbed soil samples were obtained using Standard Penetration Test (SPT) methodology with the standard split-spoon sampler. The samples were obtained by driving the sampler 18 inches into the soil with a 140-pound automatic hammer free-falling 30-inches. The number of blows required for each 6 inches of penetration was recorded. The blow count ("N-value") of the soil was calculated as the number of blows required for the final 12 inches of penetration. This resistance, or N-value, provides a measure of the relative density of granular soils and the relative consistency of cohesive soils.

The samples were placed in plastic bags to maintain the moisture content and were transported back to our laboratory for a geotechnical engineer from our firm who examined and classified the soils encountered, obtained representative soil samples, observed groundwater conditions, and prepared a detailed log of each exploration. Soils encountered were classified visually in general accordance with ASTM International (ASTM) Standard Practices Test Method D 2488-90, which is described in Figure A-1. An explanation of our boring log symbols is also shown in Figure A-1.

The logs of the borings are presented in Figures A-2 through A-3. The exploration logs are based on our interpretation of the field and laboratory data and indicate the various types of soils encountered. It also indicates the depths at which these soils or their characteristics change, although the change might be gradual. If the change occurred between samples in the boring, it was interpreted.

Observations of groundwater conditions were made during exploration. The groundwater conditions observed are presented in the logs. Groundwater conditions observed during exploration represent a short-term condition and may or may not be representative of the long-term groundwater conditions at the site.

LABORATORY TESTING

Soil samples obtained from the explorations were transported to our laboratory and examined to confirm or modify field classifications, as well as to evaluate index properties of the soil samples. Representative samples were selected for laboratory testing consisting of the determination of the moisture content, percent fines, and grain size distribution. The tests were performed in general accordance with test methods of ASTM or other applicable procedures.

Moisture Content Testing

Moisture content tests were completed in general accordance with ASTM D 2216 for representative samples obtained from the explorations. The results of these tests are presented on the exploration logs at the depths at which the samples were obtained.

Percent Passing U.S. No 200 Sieve

Selected samples were "washed" through the U.S. No. 200 mesh sieve to determine the relative percentages of coarse- and fine-grained particles in the soil. The percent passing value represents the percentage by weight of the sample finer than the U.S. No. 200 sieve. These tests were conducted to verify field descriptions and to determine the fines content for analysis purposes. The tests were conducted in general accordance with ASTM D 1140, and the results are shown on the exploration logs in Appendix A in the column labeled "Fines Content %" adjacent to the corresponding samples.

Sieve Analyses

Sieve analyses were performed on selected samples in general accordance with ASTM D 422 to determine the sample grain size distribution. The wet sieve analysis method was used to determine the percentage of soil greater than the U.S. No. 200 mesh sieve. The results of the sieve analyses were plotted, classified in general accordance with the Unified Soil Classification System (USCS), and are presented in Figures A-4 through A-5.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata

Approximate contact between soil strata

Material Description Contact

Contact between geologic units

Contact between soil of the same geologic unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PL	Point load test
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

Key to Exploration Logs

GeoEngineers

Figure A-1

Rev 09/2020

Drilled: Start 8/25/2020 End 8/25/2020	Total Depth (ft) 26.5	Logged By AWS Checked By SWC	Driller Boretec1, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) 295 Vertical Datum NAVD88		Hammer Data Rope & Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment EC 95	
Easting (X) 1454094 Northing (Y) 526424		System Datum WA State Plane North NAD83 (feet)		See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	0						SM	Brown silty fine to medium sand with trace gravel and trace fine organic matter (medium dense, dry to moist) (fill/reworked native)			
		8	14		1						
290	5	18	6		2 MC			Becomes loose, increased gravel content	3		
							GP-GM	Gray fine gravel with silt and sand (medium dense, moist)			
		4	50/6" *		3						*Blow count overstated
285	10	10	10		4 SA		SM	Gray with orange staining silty fine to coarse sand (medium dense, moist) (alluvial fan deposits)	11	47	
							SM	Gray-brown silty fine sand with 4-inch silt lenses (loose, wet)			Groundwater observed at approximately 12 feet during drilling
		18	7		5						
280	15	8	5		6		GM	Gray-brown silty fine gravel with sand (loose, wet)			
275	20	10	4		7 SA		ML	Brown gravelly silt with sand (loose, wet)	19	51	
270	25		11		8			Becomes medium dense			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Boring B-3

GeoEngineers

Project: South Osterman Creek Culvert Replacement
Project Location: Rockport, Washington
Project Number: 0220-096-01

Figure A-2
Sheet 1 of 1

Date:12/31/20 Path:W:\PROJECTS\0\0220096\GINT\022009601.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_GEOTECH_STANDARD_%F_NO_GW

Drilled: Start 8/25/2020 End 8/25/2020	Total Depth (ft) 26.5	Logged By AWS Checked By SWC	Driller Boretec1, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) 293 Vertical Datum NAVD88		Hammer Data Rope & Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment EC 95	
Easting (X) 1454156 Northing (Y) 526382		System Datum WA State Plane North NAD83 (feet)		See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	0					SM	Gray silty fine to coarse sand with gravel (loose, moist) (fill/reworked native)			
290		10	6	1 SA				14	43	
	5	14	11	2 MC			Becomes medium dense	8		
285		12	15	3						
	10	14	6	4 SA		SM	Gray silty fine to medium sand (loose, moist) (alluvial fan deposits)	12	23	
280		8	10	5			Becomes medium dense, wet			Groundwater observed at approximately 12 feet during drilling
	15	7	12	6 SA		GM	Gray silty fine to coarse gravel with sand (medium dense, wet)	13	21	
275										
	20		9	7		SM/ML	Gray silty fine to coarse sand with gravel to sandy silt with fibrous organic lenses (loose/stiff, wet)			
270										
	25		11	8						

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

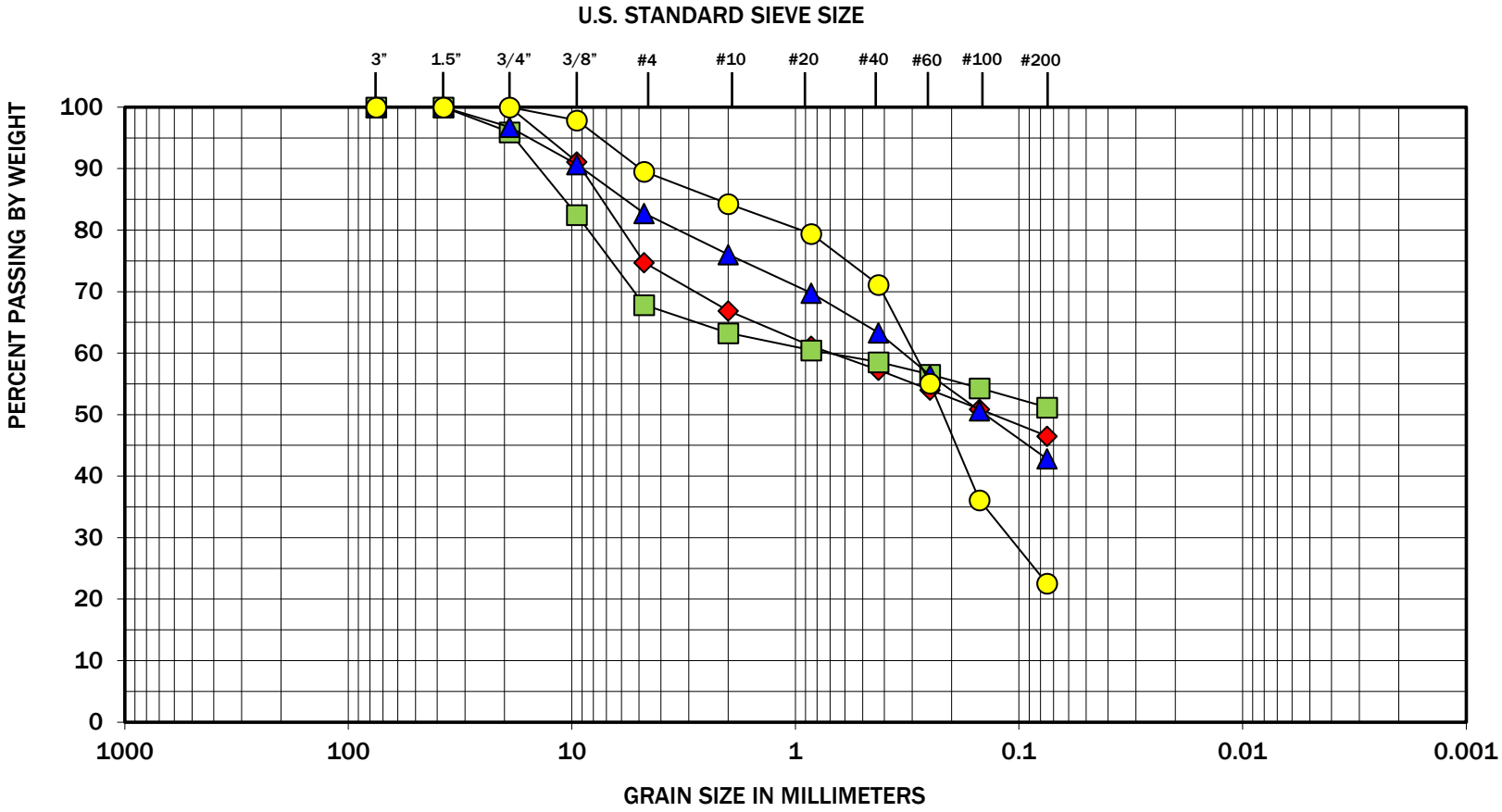
Log of Boring B-4

GeoEngineers

Project: South Osterman Creek Culvert Replacement
Project Location: Rockport, Washington
Project Number: 0220-096-01

Figure A-3
Sheet 1 of 1

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Symbol	Boring Number	Depth (feet)	Moisture (%)	Soil Description
◆	B-3	10	11	Silty fine to coarse sand with gravel (SM)
■	B-3	20	19	Gravelly silt with sand (ML)
▲	B-4	2.5	14	Silty fine to coarse sand with gravel (SM)
●	B-4	10	12	Silty fine to medium sand (SM)

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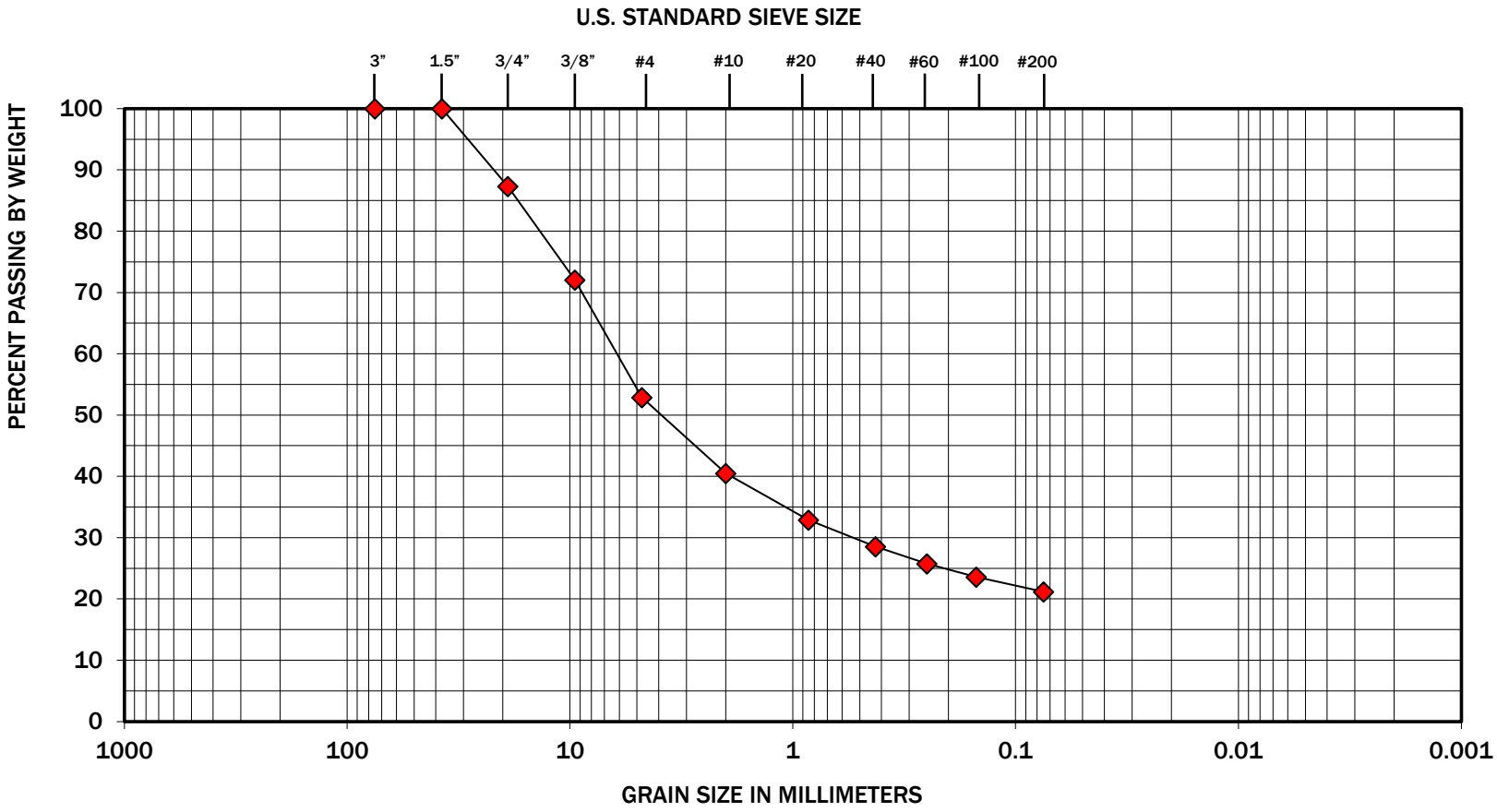
The grain size analysis results were obtained in general accordance with ASTM D 6913.

Sieve Analysis Results

South Osterman Creek Culvert Replacement
Rockport, Washington

GeoEngineers

Figure A-4



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Symbol	Boring Number	Depth (feet)	Moisture (%)	Soil Description
◆	B-4	15	12	Silty fine to coarse gravel with sand (GM)

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The grain size analysis results were obtained in general accordance with ASTM D 6913.

Sieve Analysis Results

South Osterman Creek Culvert Replacement
Rockport, Washington

GeoEngineers

Figure A-5

Appendix B
Report Limitations and Guidelines for Use

Appendix B
Report Limitations and Guidelines for Use[1]

This appendix provides information to help you manage your risks with respect to the use of this report.

READ THESE PROVISIONS CLOSELY

It is important to recognize that the geoscience practices (geotechnical engineering, geology, and environmental science) rely on professional judgment and opinion to a greater extent than other engineering and natural science disciplines, where more precise and/or readily observable data may exist. To help clients better understand how this difference pertains to our services, GeoEngineers includes the following explanatory "limitations" provisions in its reports. Please confer with GeoEngineers if you need to know more how these "Report Limitations and Guidelines for Use" apply to your project or site.

GEOTECHNICAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS, AND PROJECTS

This report has been prepared for David Evans and Associates, Inc., Skagit County and their authorized agents and for the Project specifically identified in the report. The information contained herein is not applicable to other sites or projects.

GeoEngineers structures its services to meet the specific needs of its clients. No party other than the party to whom this report is addressed may rely on the product of our services unless we agree to such reliance in advance and in writing. Within the limitations of the agreed scope of services for the Project, and its schedule and budget, our services have been executed in accordance with our Agreement with David Evans and Associates, Inc. dated March 20, 2025, and generally accepted geotechnical practices in this area at the time this report was prepared. We do not authorize, and will not be responsible for, the use of this report for any purposes or projects other than those identified in the report.

A GEOTECHNICAL ENGINEERING OR GEOLOGIC REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

This report has been prepared for the South Osterman Creek Culvert Replacement project. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important project changes were made.

[1] Developed based on material provided by GBA, GeoProfessional Business Association; www.geoprofessional.org.

For example, changes that can affect the applicability of this report include those that affect:

- The function of the proposed structure;
- Elevation, configuration, location, orientation, or weight of the proposed structure;
- Composition of the design team; or
- Project ownership.

If changes occur after the date of this report, GeoEngineers cannot be responsible for any consequences of such changes in relation to this report unless we have been given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

ENVIRONMENTAL CONCERNS ARE NOT COVERED

Unless environmental services were specifically included in our scope of services, this report does not provide any environmental findings, conclusions, or recommendations, including but not limited to, the likelihood of encountering underground storage tanks or regulated contaminants.

SUBSURFACE CONDITIONS CAN CHANGE

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the site, new information or technology that becomes available subsequent to the report date, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. If more than a few months have passed since issuance of our report or work product, or if any of the described events may have occurred, please contact GeoEngineers before applying this report for its intended purpose so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

GEOTECHNICAL AND GEOLOGIC FINDINGS ARE PROFESSIONAL OPINIONS

Our interpretations of subsurface conditions are based on field observations from widely spaced sampling locations at the site. Site exploration identifies the specific subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied its professional judgment to render an informed opinion about subsurface conditions at other locations. Actual subsurface conditions may differ, sometimes significantly, from the opinions presented in this report. Our report, conclusions and interpretations are not a warranty of the actual subsurface conditions.

GEOTECHNICAL ENGINEERING REPORT RECOMMENDATIONS ARE NOT FINAL

We have developed the following recommendations based on data gathered from subsurface investigation(s). These investigations sample just a small percentage of a site to create a snapshot of the subsurface conditions elsewhere on the site. Such sampling on its own cannot provide a complete and accurate view of subsurface conditions for the entire site. Therefore, the recommendations included in this report are preliminary and should not be considered final. GeoEngineers' recommendations can be finalized only by observing actual subsurface conditions revealed during construction. GeoEngineers

cannot assume responsibility or liability for the recommendations in this report if we do not perform construction observation.

We recommend that you allow sufficient monitoring, testing and consultation during construction by GeoEngineers to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes if the conditions revealed during the work differ from those anticipated, and to evaluate whether earthwork activities are completed in accordance with our recommendations. Retaining GeoEngineers for construction observation for this project is the most effective means of managing the risks associated with unanticipated conditions. If another party performs field observation and confirms our expectations, the other party must take full responsibility for both the observations and recommendations. Please note, however, that another party would lack our project-specific knowledge and resources.

A GEOTECHNICAL ENGINEERING OR GEOLOGIC REPORT COULD BE SUBJECT TO MISINTERPRETATION

Misinterpretation of this report by members of the design team or by contractors can result in costly problems. GeoEngineers can help reduce the risks of misinterpretation by conferring with appropriate members of the design team after submitting the report, reviewing pertinent elements of the design team's plans and specifications, participating in pre-bid and preconstruction conferences, and providing construction observation.

DO NOT REDRAW THE EXPLORATION LOGS

Geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. The logs included in a geotechnical engineering or geologic report should never be redrawn for inclusion in architectural or other design drawings. Photographic or electronic reproduction is acceptable, but separating logs from the report can create a risk of misinterpretation.

GIVE CONTRACTORS A COMPLETE REPORT AND GUIDANCE

To help reduce the risk of problems associated with unanticipated subsurface conditions, GeoEngineers recommends giving contractors the complete geotechnical engineering or geologic report, including these "Report Limitations and Guidelines for Use." When providing the report, you should preface it with a clearly written letter of transmittal that:

- Advises contractors that the report was not prepared for purposes of bid development and that its accuracy is limited; and
- Encourages contractors to conduct additional study to obtain the specific types of information they need or prefer.

CONTRACTORS ARE RESPONSIBLE FOR SITE SAFETY ON THEIR OWN CONSTRUCTION PROJECTS

Our geotechnical recommendations are not intended to direct the contractor's procedures, methods, schedule, or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and adjacent properties.

BIOLOGICAL POLLUTANTS

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention, or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.

INFORMATION PROVIDED BY OTHERS

GeoEngineers has relied upon certain data or information provided or compiled by others in the performance of our services. Although we use sources that we reasonably believe to be trustworthy, GeoEngineers cannot warrant or guarantee the accuracy or completeness of information provided or compiled by others.



CONCRETE-SAUK VALLEY ROAD FISH PASSAGE PROJECT

FINAL BASIS OF DESIGN REPORT

Skagit County Public Works
1800 Continental Place
Mount Vernon, Washington 98273
(360) 416-1437

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Appendix A DRAFT Final Design Plans
Appendix B DRAFT Final Construction Cost Estimate

INTRODUCTION

Project Background

The Sauk River has migrated over 2,000 feet laterally towards Concrete-Sauk Valley Road since the mid-1990s. This channel migration has resulted in the erosion of a high bank that has encroached into the road base, requiring a full lane closure of the Concrete-Sauk Valley Road. In addition, the channel migration has contributed to stream bed and material loss (head cutting) on three tributary streams (Hobbit's Creek, North Osterman Creek, and South Osterman Creek) in the project area resulting in perched culverts, creating fish barriers to tributary channel habitat (Figure 1).

Skagit County Public Works (SCPW) contracted with Natural Systems Design (NSD) to lead an assessment of existing conditions at the project site, identify feasible alternatives to restore two-way traffic and fish passage, and analyze those alternatives. NSD completed a multidisciplinary assessment of existing conditions in 2018 (NSD, 2018). Findings from the existing conditions analysis were used to inform the design of three alternative sets of project actions intended to meet project goals and objectives in a subsequent analysis of alternatives (NSD, 2019). The preferred project alternative involved several proposed project actions including:

- Partial road relocation to set the road back outside the highest risk erosion area;
- Replacement of existing undersized culverts with appropriately sized structures at three tributary channels;
- Construction of grade control structures in tributary channels to provide fish passage and stability in tributary systems;
- Construction of a series of engineered log jams (ELJs) along the eroding bank of the mainstem Sauk River to stabilize the bank and prevent further westward migration.

Fully implementing all project actions included in the preferred alternative is a complex, costly, and time-intensive undertaking. While pursuing design and construction funding to implement all proposed project actions, SCPW has proactively elected to pursue advancing the design of the elements associated with restoring fish passage in both North and South Osterman creeks. The balance of this report documents the analysis, design, and collaboration which serve as the basis for the design of proposed project elements specifically related to restoring fish passage at North and South Osterman creeks. Where appropriate, the report includes additional descriptions and discussion related to the larger project context, particularly the mainstem Sauk River and its past, current, and future processes likely to impact the proposed project.

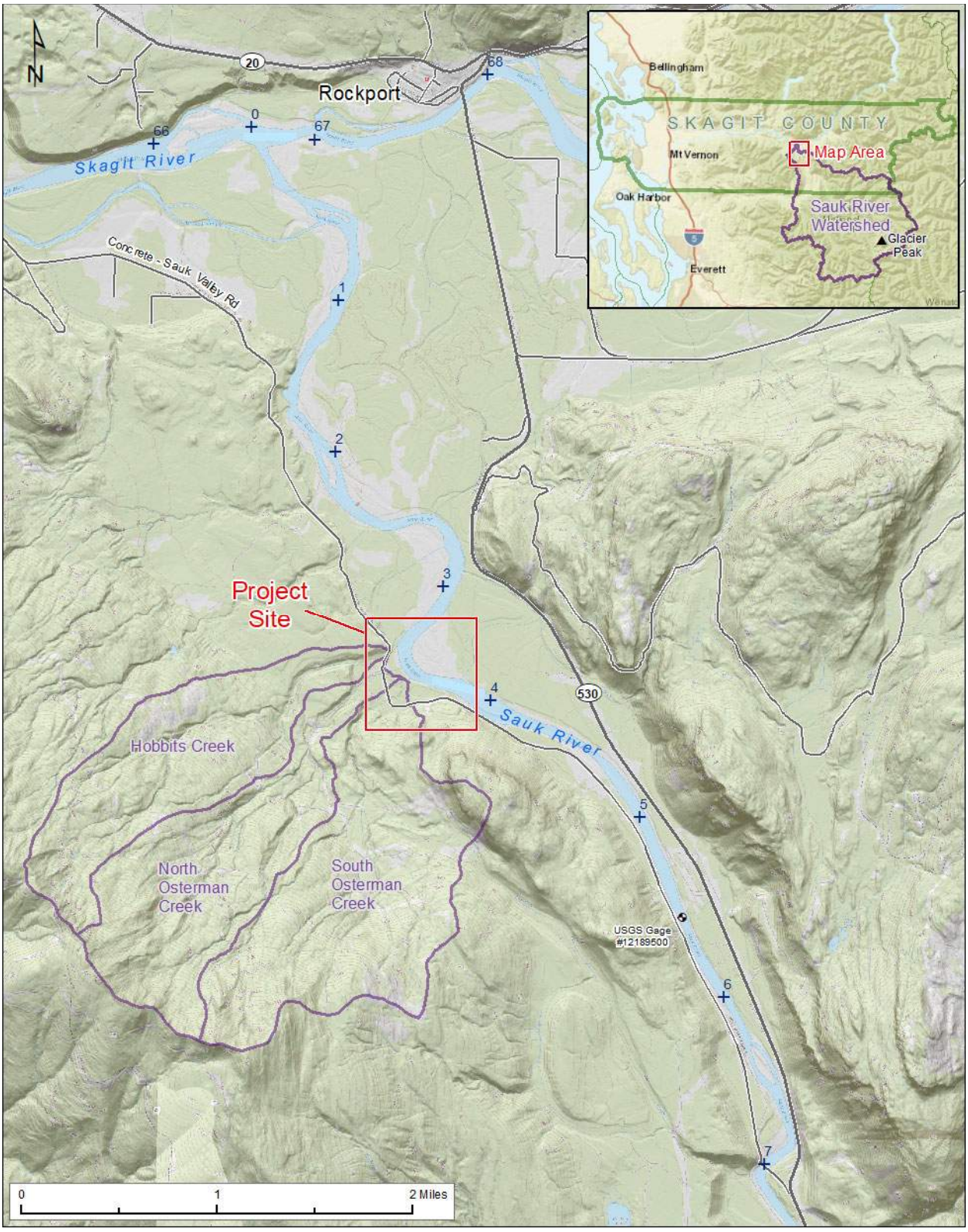


Figure 1. Project vicinity including tributary channel basins, Concrete-Sauk Valley Road, and the Sauk River.

Purpose and Scope

The purpose of this report is to document the basis of design for proposed project actions to restore fish passage in North and South Osterman creeks. The intent is to provide documentation of the assessments, calculations and analyses, consultations, design criteria utilized, and other input received during the design process and describe how these collectively influenced the design of proposed project actions.

Project Goals and Objectives

Project goals were initially developed as part of the initial alternatives analysis. Project goals and objectives specific to the design of this subset of project actions built upon these original goals. The goals of the proposed actions presented herein are focused on fish passage restoration, upstream habitat connectivity, and project feasibility and include:

- Goal 1: Restore fish passage in North Osterman and South Osterman creeks.
  - Objective 1A: Provide a design, which transitions from the upstream channel to the incised downstream channel, while allowing for upstream passage of adult salmonids thought to utilize the tributary channels, while following applicable design guidelines from the Washington Department of Fish and Wildlife (WDFW) Water Crossing Design Guidelines and the National Marine Fisheries Service (NMFS) Anadromous Salmonids Passage Facility Design.
  - Objective 1B: Develop an innovative design, utilizing a combination of rock and wood, to create a stable engineered wood and rock channel capable of conveying the full range of anticipated flows in the channels, while providing widely-varying and diverse hydraulic conditions through the stabilized channel in the form of a log-boulder step-pool system.
  - Objective 1C: Include specific project elements to address anticipated future headcutting in each channel due to continued incision associated with the latest period of westward lateral migration of the Sauk River and tributary channel shortening.
- Goal 2: Prevent potential damage to upstream habitat and private parcels, buildings, and infrastructure.
  - Objective 2A: Prevent erosion associated with headcutting upstream of the existing culverts which could threaten upstream aquatic habitat and the stability of existing buildings and infrastructure (private road) on private parcels.
- Goal 3: Provide a fish passage solution that also restores full-time, two-way traffic along Concrete-Sauk Valley Road.
  - Objective 3A: Reconstruct the roadway as close to its existing alignment and grade as possible following AASHTO, WSDOT, and County standards for design.
  - Objective 3B: Minimize the extents of new culverts while conforming to the maximum side slopes as dictated by geotechnical conditions.
- Goal 4: Provide a fish passage solution that also reduces long-term maintenance costs related to roadway and structure maintenance.
  - Objective 4A: Design proposed project elements to reduce maintenance and monitoring to the lowest amount feasible.
- Goal 5: Develop a fish passage design which meets the project goals in a manner that is financially feasible to implement.
  - Objective 5A: Design proposed project elements which allow for implementation using typically available funds, likely some combination of funds from SCPW capital improvements budget, SRFB funds, and FBRB funds.

EXISTING CONDITIONS

A full analysis of geomorphic and hydraulic conditions was previously performed and documented in 2018 (NSD). Key findings pertinent to the design of fish passage project elements in North and South Osterman creeks are reiterated here and expanded upon as the existing conditions had a large influence on the design.

Fish Species Presence

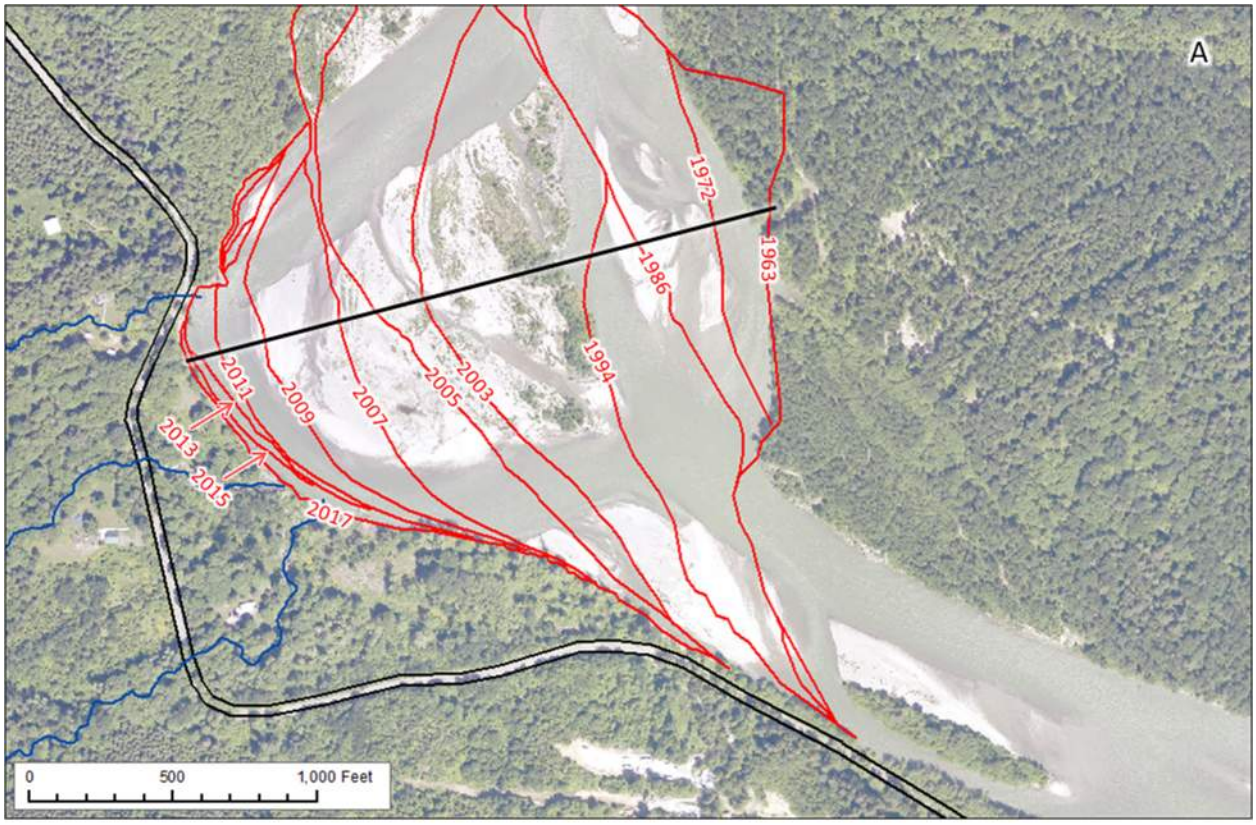
An extensive biological survey to determine fish use within each tributary stream has not been conducted as part of this effort. Publicly available data from WDFW (WDFW Salmonscape, 2021) indicate that bull trout (*Salvelinus confluentus*), steelhead (*Oncorhynchus mykiss*), and Chinook (*Oncorhynchus tshawytscha*) all utilize the mainstem Sauk River. North and South Osterman are both considered 'gradient accessible' streams for Chinook and steelhead; bull trout are presumed present in South Osterman though no presence is mapped in North Osterman. Additionally, pink salmon (*Oncorhynchus gorbuscha*) were observed spawning in South Osterman on a site visit conducted in October 2021.

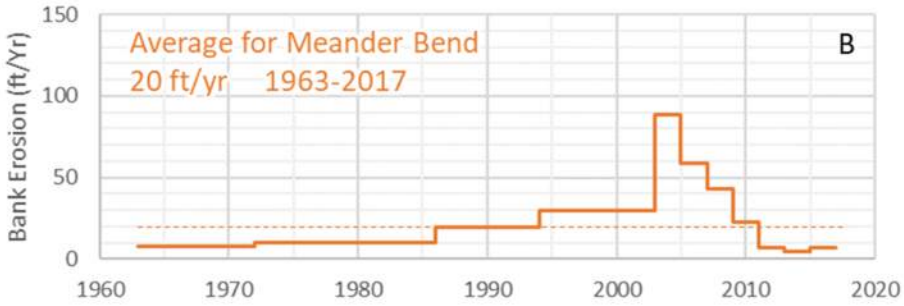
Mainstem Sauk River

The Sauk River has been migrating westerly toward Concrete-Sauk Valley Rd over recent decades and as recently as 2017 was eroding into a 20-foot-high bank composed of sand and gravel (Figure 2). This surface appears to be an old terrace (possibly early Holocene) that is draped with alluvial fan deposits from the tributary channels draining to the Sauk River in this location. The terrace is underlain by alluvial sediments that are highly erodible (sand and gravel). The outer extent of Holocene channel migration is marked by a crescent-shaped scarp within the interior of an "L" shaped curve in Concrete-Sauk Valley Rd (Figure 3). The ground to the west rises 8 to 10 feet above the ground elevation at the base of the scarp. The higher ground to the west appears to be old (inactive) alluvial fan deposit that the river eroded into to form the scarp. Younger alluvial fan deposits then lie over the alluvial terrace between the edge of the active channel and the scarp marking the extent of Holocene channel migration.

Historical images used to characterize migration of the Sauk River over a 54-year period (1963-2017) indicate over 86 acres of floodplain erosion, or 1.6 acres of floodplain erosion per year. Erosion rates averaged 20 feet per year over the length of the meander bend adjacent to the project area with the apex of the meander bend averaging nearly double the overall meander migration rate at 39 feet per year (Figure 1Figure 2). Erosion toward Concrete-Sauk Valley Road has slowed since 2013 with less than 5 feet per year of westward migration occurring from 2013-2017. These migration rates, coupled with geomorphic indicators observable in LiDAR data, were used to develop channel migration zones (Figure 4) and they played a key role in identifying locations of road setback alternatives under the initial design effort.

Since 2017, the mainstem has moved slightly away from its furthest west extent and no longer conveys a majority of flow in the channel adjacent to Concrete-Sauk Valley Road. Instead, the channel occupies what was a split channel in 2017 with a smaller portion of flow now being conveyed in the channel closest to the road. While the current trend of channel evolution adjacent to the project site is beneficial in terms of reduced hazard and risk to existing or proposed infrastructure, it is extremely important to note that the Sauk River is a dynamic alluvial system and the current trend of migration away from the road could quickly reverse with renewed westward migration up to and beyond the current banks of the active channel.





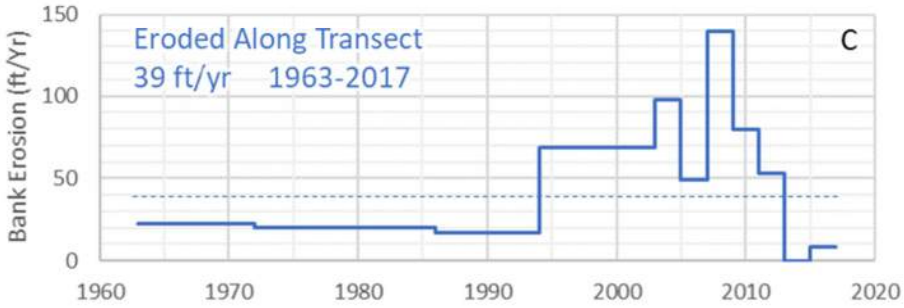


Figure 2. Bank erosion toward Concrete-Sauk Valley Rd over the period 1963-2018. (A); erosion rates averaged for the meander bend where the average rate is derived by dividing the eroded area by the eroded length (B); and erosion rates measured along a transect at the apex of the meander bend (C).

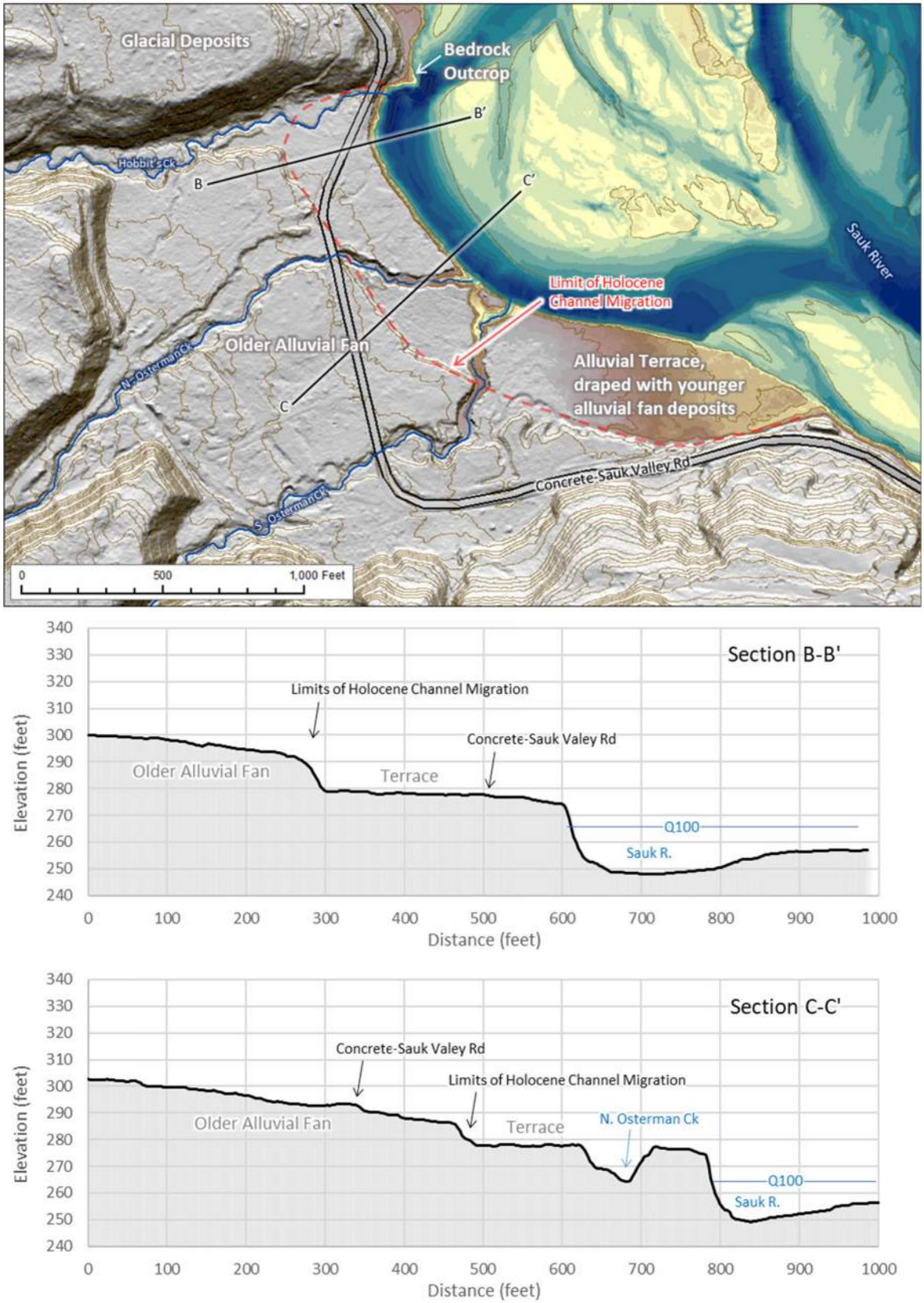


Figure 3. Geomorphic features along Concrete-Sauk Valley Road near MP 13 (elevations from 2016 LiDAR).

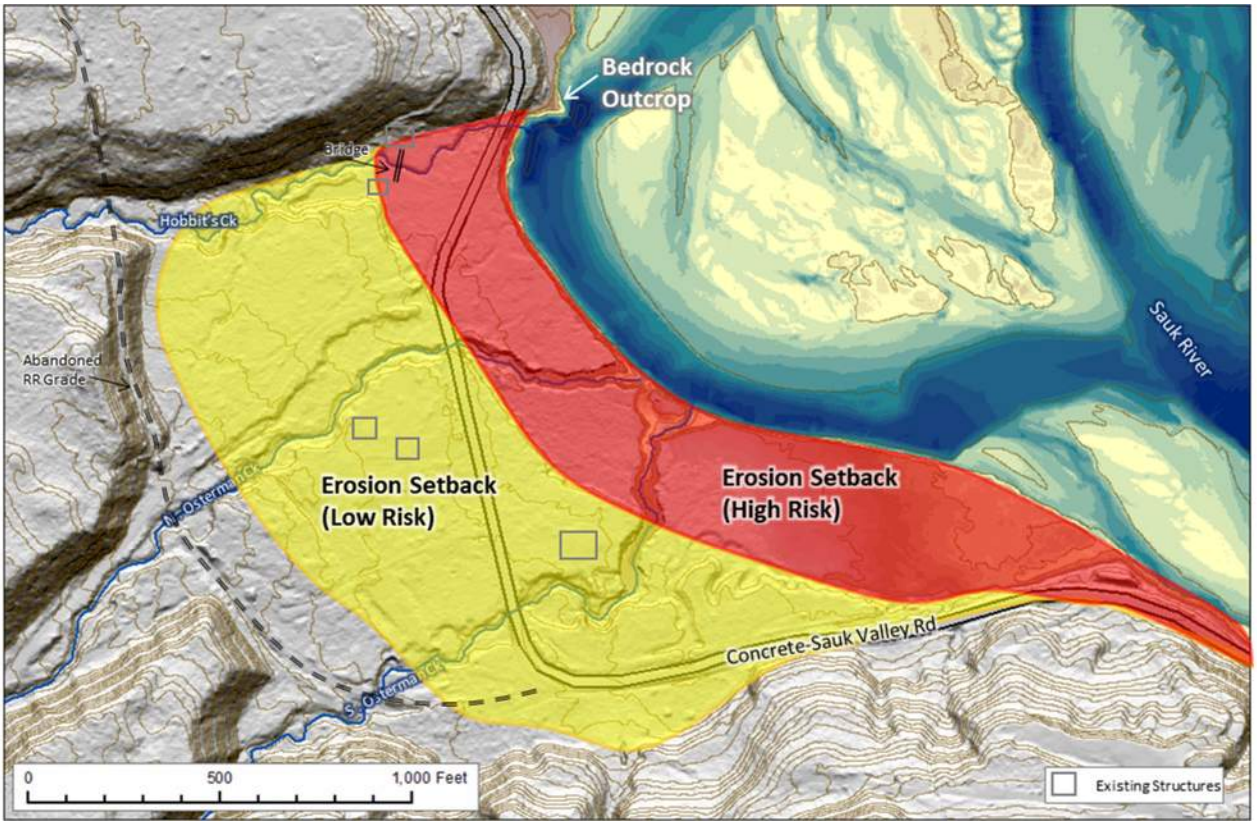


Figure 4. Channel migration zones in relation to site features. The alluvial terrace exposed by recent erosion is all at high risk for continued erosion. Alluvial fan deposits west of the terrace are also erodible; however, risk of migration into that zone is lower than the terrace.

Tributary Channels

Three tributary channels draining similarly sized watersheds cross Concrete-Sauk Valley Road in the project vicinity: Hobbit's Creek, North Osterman Creek, and South Osterman Creek Figure 1(Figure 4). Each tributary drains a mostly forested watershed and exhibits a characteristic concave longitudinal profile transitioning gradually from very steep slopes in the headwaters to moderate slopes on the order of 1-3% upstream of the road crossings. Prior to the westward migration of the Sauk, this characteristic concave profile continued for several hundred feet, asymptotically flattening over the length of each tributary channel. The westward lateral migration of the Sauk River over the past several decades has physically shortened the longitudinal length of these tributary channels, directly leading to a lowering of the base level in each tributary channel and associated incision. This is perhaps most obvious at Hobbit's Creek where the limit of Sauk River lateral migration coincides with the road embankment. Erosion of the mainstem Sauk River bank has exposed the existing culvert outlet, forcing an abrupt change in elevation from the prevailing elevation upstream of the culvert to the elevation of the Sauk River over a very short distance. Prior to the westward migration, Hobbit's Creek made up this elevation change over hundreds of feet at a low gradient.

North and South Osterman have similarly experienced drastic shortening of their channels which has led to pronounced incision downstream of the road in both North and South Osterman. As the base level has dropped as a result of the westward channel migration, both North and South Osterman channels also experienced significant widening. Lowering of the channel bed formed steep gulley walls which seek a stable slope corresponding to the angle of repose for the underlying alluvium over time. Incision and widening have led to

significant disturbances in the channels downstream of the road including at least a temporary loss of channel shading and complex instream habitat following the incision (Figure 5). As the steep gulley banks continue to stabilize, significant volumes of sediment are delivered to North and South Osterman creek channels intermittently. While the eroding banks downstream of the road have recruited several trees, many of the trees are large enough that they span the channel, providing some local shading, but not providing any wood inputs to the channels (Figure 6).

In contrast, upstream of the road, North and South Osterman channels both exhibit diverse habitat in-channel and within the riparian corridor. Channel bedform in each channel upstream of the culverts is characteristic of both plane bed and pool-riffle channel types; pools are primarily associated with in-channel wood and some extended riffle or run habitats exist. Riparian vegetation is well established and contains a diversity of native shrubs and trees which provide both in-channel shading and increase habitat complexity by stabilizing banks and providing an input of wood to the systems (Figure 7). In short, aquatic habitat in North and South Osterman creeks downstream of Concrete-Sauk Valley Road is less diverse and generally lower quality than above the road and is isolated from floodplain and riparian influence.

The degraded conditions in North and South Osterman creeks downstream of the road have generally developed in conjunction with, but lagging behind, the westward migration of the Sauk. Incision is a gradual process typically occurring episodically associated with higher flows capable of eroding and transporting soils and sediments present in the systems. When conducting an analysis of existing conditions for the broader road stabilization project in 2018, NSD concluded that the incision caused by the Sauk River migration was still in progress, pointing to several knickpoints visible in the 2016 longitudinal profiles as evidence of ongoing channel evolution in the tributary channels that would continue in years to come (Figure 8).

North Osterman Creek

As part of the associated alternatives analysis for the broader project, NSD (2019) developed an estimate of future incision likely to occur without any further westward migration of the Sauk River in North Osterman Creek. NSD developed this estimate under ‘worst-case’ conditions of incision continuing unchecked upstream and through the road embankment (Figure 9). The future incision profile was developed by mimicking the shape of the 2005 profile from the current confluence with the Sauk River up to the road; from this point upstream, the profile was approximated using a generally parabolic shape which gradually transitioned to the existing profile upstream of the road. Using this approach, approximately 1,550 feet of natural incision could occur if allowed to progress through the road embankment and continue unchecked upstream of the existing road. This represents not only a risk of a continued fish passage issues, but also a risk of loss of upstream intact aquatic and riparian habitat. Aside from these risks to habitat, the incision and gulley formation that would occur if incision progresses upstream unchecked would occur largely on private property, posing a potential risk to existing infrastructure (buildings and roads) on private parcels upstream of the road.

Comparing a recent longitudinal profile based on topographic survey in 2020 to previous profiles developed from LiDAR data against the estimated future incision profile provides a useful visualization of the ongoing incision processes which have occurred in North Osterman (Figure 10), even since 2018, when the initial site assessment was conducted. Between the LiDAR data collection in 2016 and the topographic survey in 2020, North Osterman experienced approximately 3 to 4 feet of incision downstream of the culvert as illustrated by the significant lowering evident in the 2020 longitudinal profile. The physical impacts of this ongoing incision can be readily observed in the gulley downstream of the road where freshly eroded banks are evident; between 2018 and 2020, the outlet of the culvert at North Osterman was directly impacted by this ongoing erosion as a portion of the concrete apron at the outlet was lost and the drop from the culvert outlet increased (Figure 11).

During design development, conditions in North Osterman Creek continued to evolve. A high flow event in early 2021 resulted in erosion which caused the loss of the three furthest downstream culvert sections also eroded a large portion of the existing roadway embankment (Figure 12). SCPW procured a temporary one-lane bridge to temporarily address the issue and installed the bridge in May of 2021. Conditions have continued to evolve since the initial washout in January of 2021 (Figure 13). A follow-up site visit conducted by GeoEngineers in early October of 2021 revealed further upstream progression of the erosion and loss of additional culvert sections; of the original 9 sections of reinforced concrete pipe at the North Osterman crossing, only four remained. Following this site visit, monitoring of site conditions has been conducted on a much more regular basis. A second site visit in mid-October 2021 was conducted with the goal of assessing feasibility of implementing temporary stabilization measures to prevent further erosion. On this second site visit in October 2021, several observations made in the field suggested that erosion may result in full loss of the road embankment within a period of days to weeks.



Figure 5. Looking downstream at incision and gulley formation in North Osterman (photo from 2018).



Figure 6. Channel and riparian conditions downstream of Concrete-Sauk Valley Road (North Osterman, 2018).



Figure 7. Typical riparian conditions upstream of Concrete-Sauk Valley Road (South Osterman Creek, 2020).

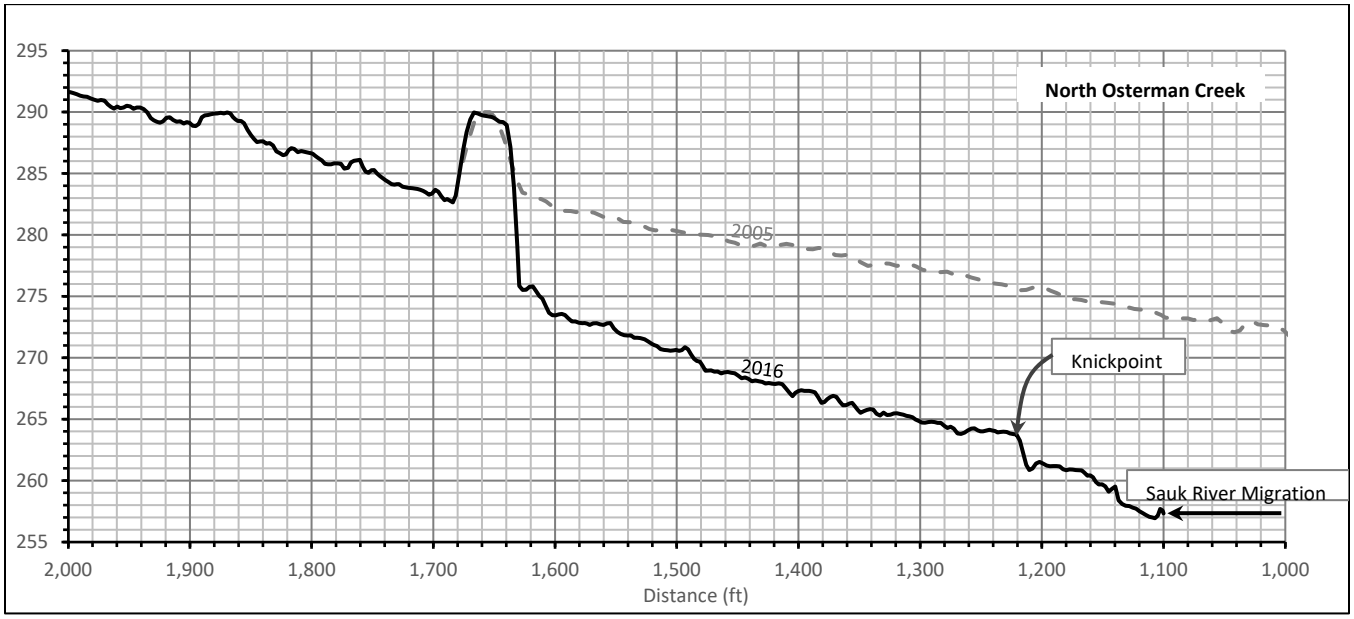


Figure 8. Longitudinal profile comparison in North Osterman Creek illustrating ongoing incision in response to base level lowering associated with westerly migration of the Sauk River (adapted from NSD, 2018).

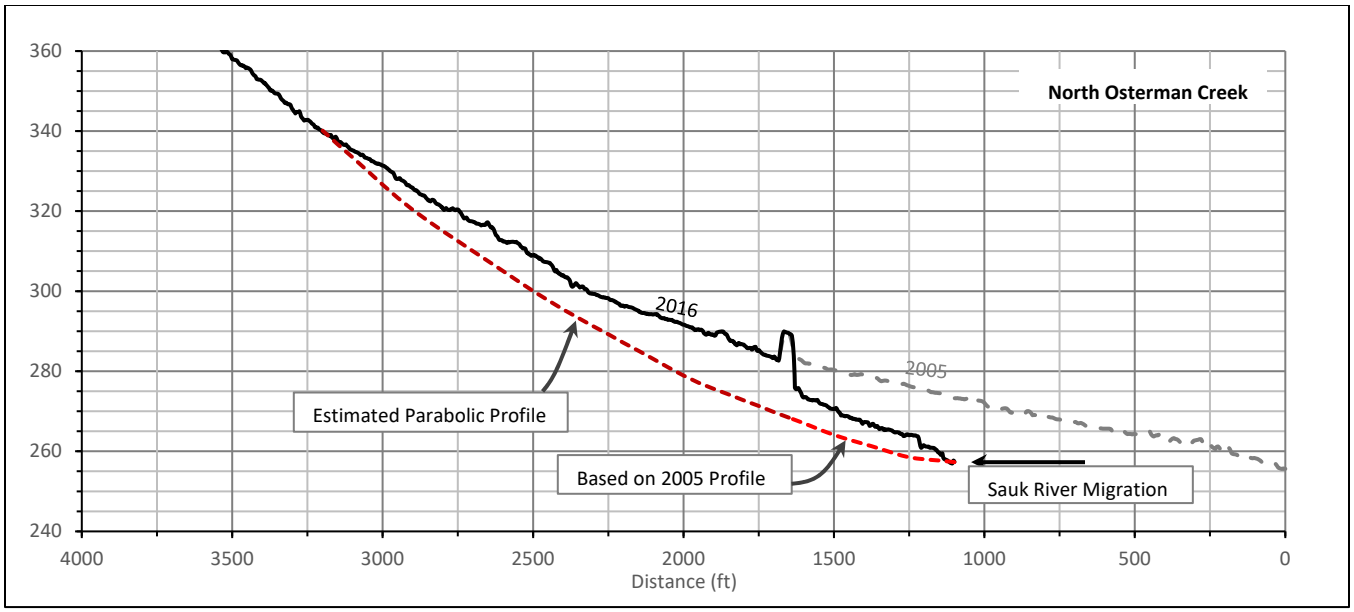


Figure 9. Estimated future tributary channel profile for North Osterman Creek following unchecked incision.

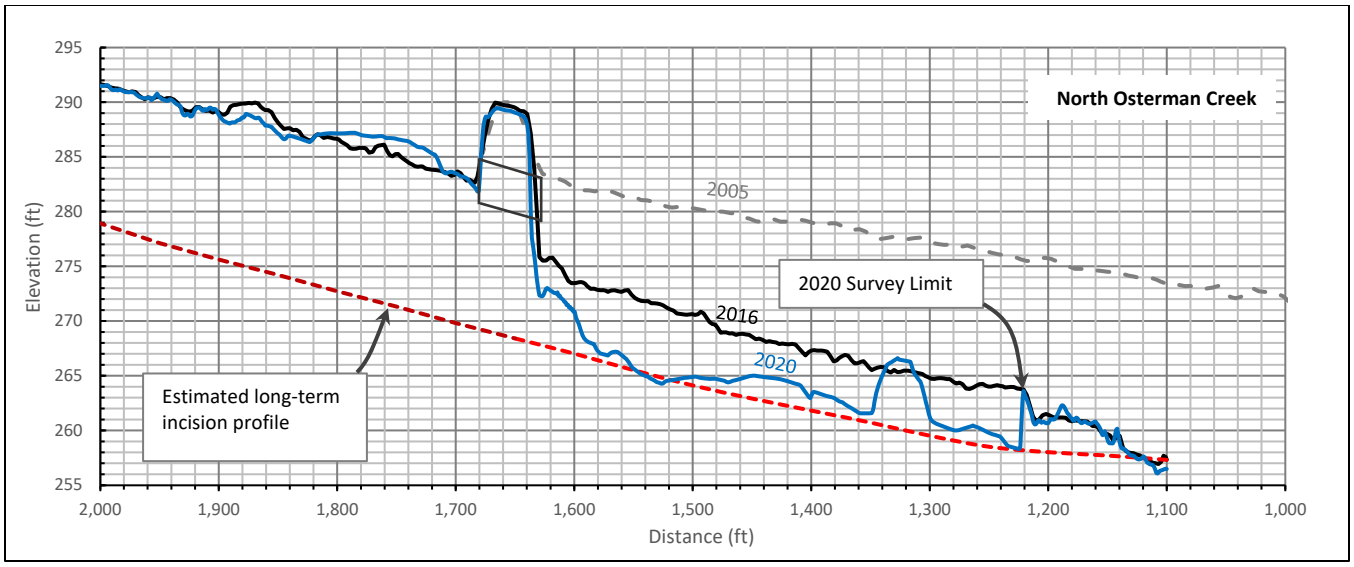


Figure 10. Comparison of longitudinal profiles in North Osterman Creek.



Figure 11. Photo comparison of conditions at the North Osterman culvert outlet from 2018 (left) and 2020 (right). Note loss of concrete apron and increased depth to channel bed in 2020.



Figure 12. North Osterman Creek at Concrete-Sauk Valley Road in January 2021 following high flow event that washed out a portion of the road.



Figure 13. Site conditions at North Osterman in mid-October of 2021.

South Osterman Creek

South Osterman Creek is also experiencing ongoing channel evolution. As part of the analysis and design effort specific to this project, a future incision profile was developed for South Osterman Creek using similar methods as those described for North Osterman. Using this approach, if incision is allowed to progress upstream unchecked, approximately 1,050 feet of headcut could progress upstream of the existing road embankment (Figure 14). This represents not only a risk of continued fish passage issues, but also a risk of losing upstream intact aquatic and riparian habitat.

Due to the geometry of the meander in the mainstem Sauk River, South Osterman now has approximately 400 feet of additional channel length downstream of the road compared to North Osterman. Incision in South Osterman Creek has taken longer to exhibit clear effects at the culvert outlet because the incision has progressed over this additional channel length. Over a period of four years, between 2016 and 2020, detectable incision in South Osterman Creek, at the outlet of the existing culvert and in the downstream channel, ranged from approximately 1 to 2 feet (Figure 15 and Figure 16).

Whereas the incision in North Osterman Creek corresponds well with the estimated future incision profile, the channel bed elevation in South Osterman is still well above the estimated future profile once incision is fully developed. Approximately 400 feet downstream of the road, a knickpoint observable in the 2016 profile appears to be partially resolved; two separate knickpoints present in the 2016 profile were not encapsulated in the 2020 topographic survey, however, given the overall lowering of the channel below the uppermost knickpoint, the collective effects of these lower two knickpoints can be estimated as mostly complete; one additional foot of incision below the uppermost knickpoint appears possible. No resistant features were observed in the channel that would suggest this incision won't occur in the future.

Over time, the furthest upstream knickpoint, at 400 feet below the existing road, is expected to progress upstream and an additional 3 to 4 feet of incision, associated with this knickpoint alone, could progress upstream toward the road. In total, we estimate an additional 4 to 5 feet of incision yet to come in South Osterman Creek. This additional incision will have detrimental effects on fish passage, instream habitat conditions, and riparian vegetation as the gulley widens. This will also impact the South Osterman culvert and the road embankment. Additionally, the ability for fish and aquatic species to successfully pass upstream through the existing culvert will continue to degrade as incision further increases the existing drop at the outlet of the culvert. Similar to North Osterman, future incision through the road embankment would lead to incision and gulley formation which would occur largely on private property, potentially negatively impacting private infrastructure.

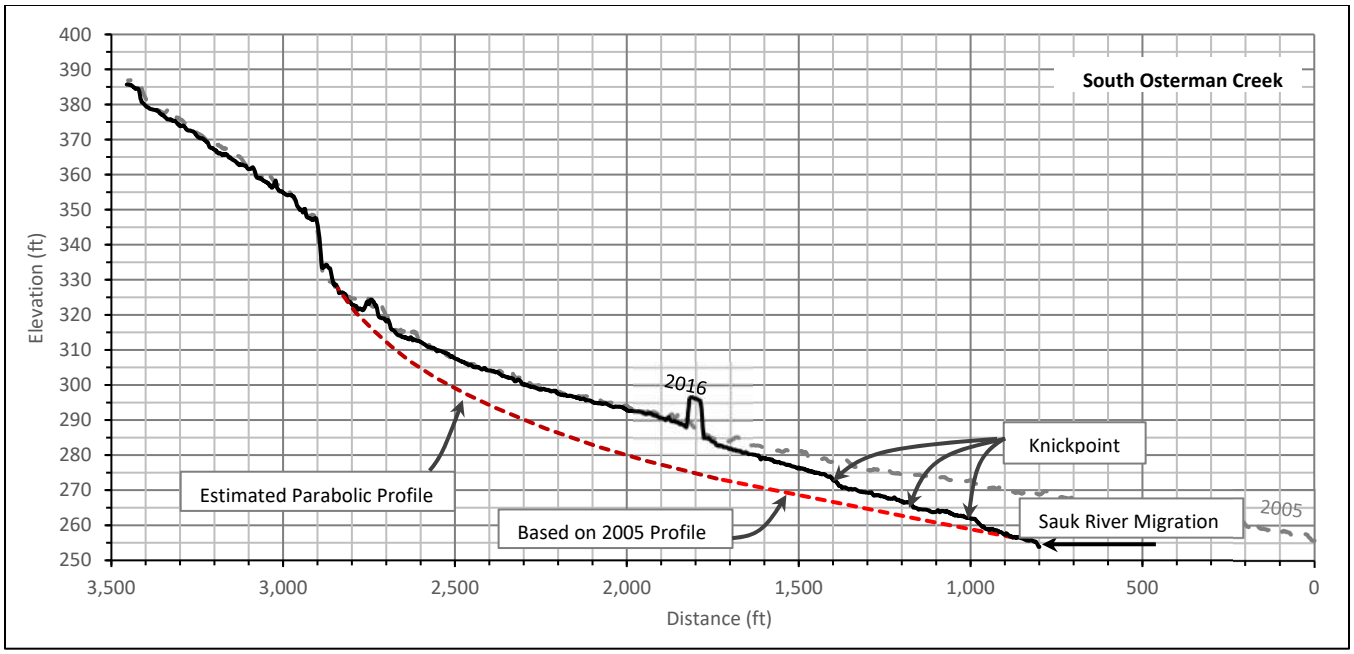


Figure 14. Longitudinal profile comparison in South Osterman Creek illustrating ongoing incision in response to base level lowering associated with westerly migration of the Sauk River.

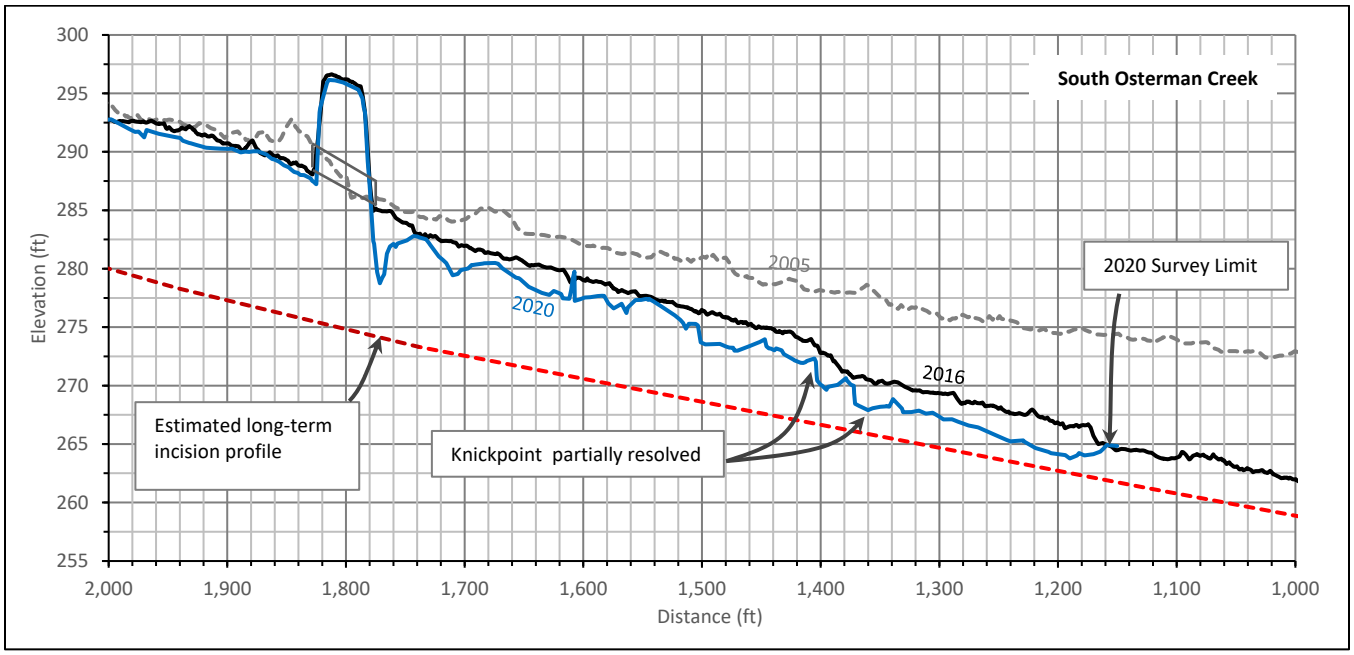


Figure 15. Comparison of longitudinal profiles in South Osterman Creek.



Figure 16. Photo comparison of conditions at the South Osterman culvert outlet from 2018 (left) and 2020 (right). Note increased water surface drop at outlet.

Existing Infrastructure

From their headwaters, North and South Osterman Creeks flow northeast toward the Sauk River. The upper portions of each creek drain steep, forested, and similarly sized watersheds originating on Rinker Ridge which separates the watersheds from the North Fork Stillaguamish River. The creeks flow from Rinker Ridge and into the Sauk River valley where the slope of each creek flattens dramatically. This flatter slope persists until the creeks cross Concrete Sauk Valley Road.

Concrete Sauk Valley Road is a critical transportation link for Skagit County and has historically served as an alternative route to State Route 530 during emergency natural events. County staff have verified that the posted speed along Concrete Sauk Valley Road is 50 mph, but at either end of the project limits, horizontal geometry requires posted advisory speeds of 20 mph at its southern limit and 25 mph at its northern limit. The Average Daily Traffic (ADT) of vehicles carried by a roadway is 120 as measured during a 24-hour period. Per the 2000 Skagit County Road Standards page 47, this highway is classified as a “Rural Minor Collector” for the measured traffic volumes. WSDOT’s “Functional Classification Map” confirms this designation. Through the project site, its paved lane widths vary from 11 to 12-feet, and graveled shoulder widths vary from 4-feet to 6-feet.

North Osterman Creek crosses Concrete Sauk Valley Road through a 5-ft diameter reinforced concrete pipe culvert set on a slight skew of approximately 3 degrees to the road. The existing culvert is set on a longitudinal slope of 3.0%, double the approximate prevailing slope upstream of the existing culvert in North Osterman Creek of 1.5%. The recent erosion which has resulted in near complete loss of the road embankment has left only four of the original nine culvert sections remaining, and the we anticipate full loss of the road within the coming weeks.

South Osterman Creek currently crosses Concrete Sauk Valley Road through a 5-ft diameter reinforced concrete pipe culvert. The existing culvert crosses the road on a skew of approximately 17 degrees; the longitudinal slope of the existing culvert is 3.0%, which is actually steeper than the prevailing slope of approximately 1.3% in South Osterman Creek upstream of the existing culvert. As discussed earlier, incision downstream of the culvert has lowered the channel and a slope discontinuity exists at the outlet of the existing culvert. A scour pool has formed at the outlet of the culvert and the elevation difference between the lowest point of the pool and the culvert outlet is approximately 7 feet; at low flow however, the water surface drop is closer to 3.8 feet due to the residual pool depth.

DESIGN DEVELOPMENT

Design development of proposed project elements has occurred in two distinctly separate, yet related undertakings. The initial development of high-level concepts for restoring fish passage in North and South Osterman Creeks occurred as part of the alternatives development and analysis effort for the broader bank stabilization and road relocation project (NSD, 2019). That effort identified and analyzed three alternatives which aimed to restore fish passage at all three tributary streams affected by the lateral migration of the Sauk River and permanently re-establish two-way traffic on Concrete-Sauk Valley Road through a combination of road relocation and improvements and mainstem Sauk River project actions.

Initial Design Development

The conceptual project actions proposed in North and South Osterman Creeks did not differ for two of the three alternatives and consisted of replacing the existing culverts and establishing fish-friendly grade control structures downstream of each culvert (Figure 17 and Figure 18). Concrete-Sauk Valley Road would remain in place at these crossings under these alternatives. The grade control structures proposed at the time were a matrix of wood and rock (Figure 19); this complex matrix of rounded aggregates and log members was simply referred to as a "roughened channel" throughout the alternatives analysis despite the fact that typical roughened channels rely on rock alone to provide stability in grade control structures.

During the alternatives analysis for the broader project, design and analysis of the culvert replacements were focused more on ensuring feasibility and establishing an estimated construction cost than developing specific design details. Proposed culvert spans on North and South Osterman Creeks were identified based on approximate bankfull widths measured in the field and applying the minimum sizing criteria from the Washington Department of Fish and Wildlife (WDFW) Water Crossing Design Guidelines (Barnard et al., 2013) of 1.2 times the bankfull width, plus an additional 2 feet, and rounded up to the nearest whole foot. The conceptual designs utilized a stream simulation design approach for the proposed channel through the new, appropriately sized replacement culverts. Downstream of each new culvert, the grade control structures were then used to stabilize the ongoing incision and provide a transition from the elevation of the natural channel to the existing elevation in the downstream gulley.

Rough hydraulic calculations performed as part of the initial design effort suggested slopes up to 8% were feasible for the proposed grade control structures and were used to develop conceptual designs of grade control structures in each tributary channel to stabilize incision. The lengths and locations of the grade control structures were based on limited site survey and LiDAR data collected in 2016 (Quantum Spatial, 2017). Grade control structures were placed at the locations of the largest knickpoints in the existing profiles. In North Osterman Creek, incision up to the existing culvert was evident and the grade control structure was placed immediately downstream of the stream simulation channel, while in South Osterman Creek, the grade control structure was proposed further downstream where knickpoints posed potential fish passage barriers. The proposed grade control structures continued past the point of intersection with the channel bed and continued at the same design slope of 8% down to the lowest elevation that future incision was likely to reach to provide resiliency against future anticipated incision. The portion of the grade control structures below the intersection with the existing channel would then essentially be backfilled and the channel rebuilt close to existing conditions.

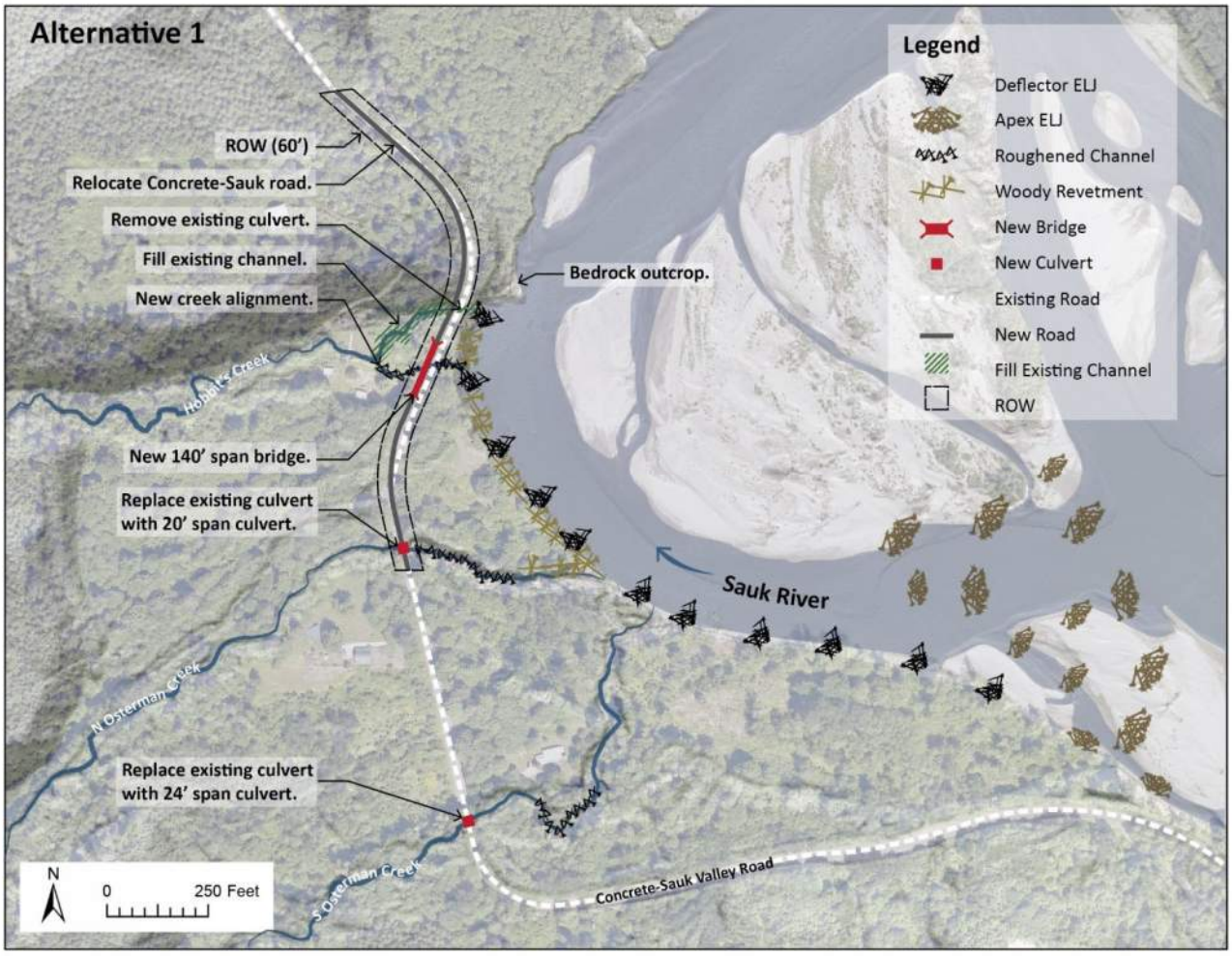


Figure 17. Proposed project actions for Alternative 1 of broader project (from NSD, 2019).

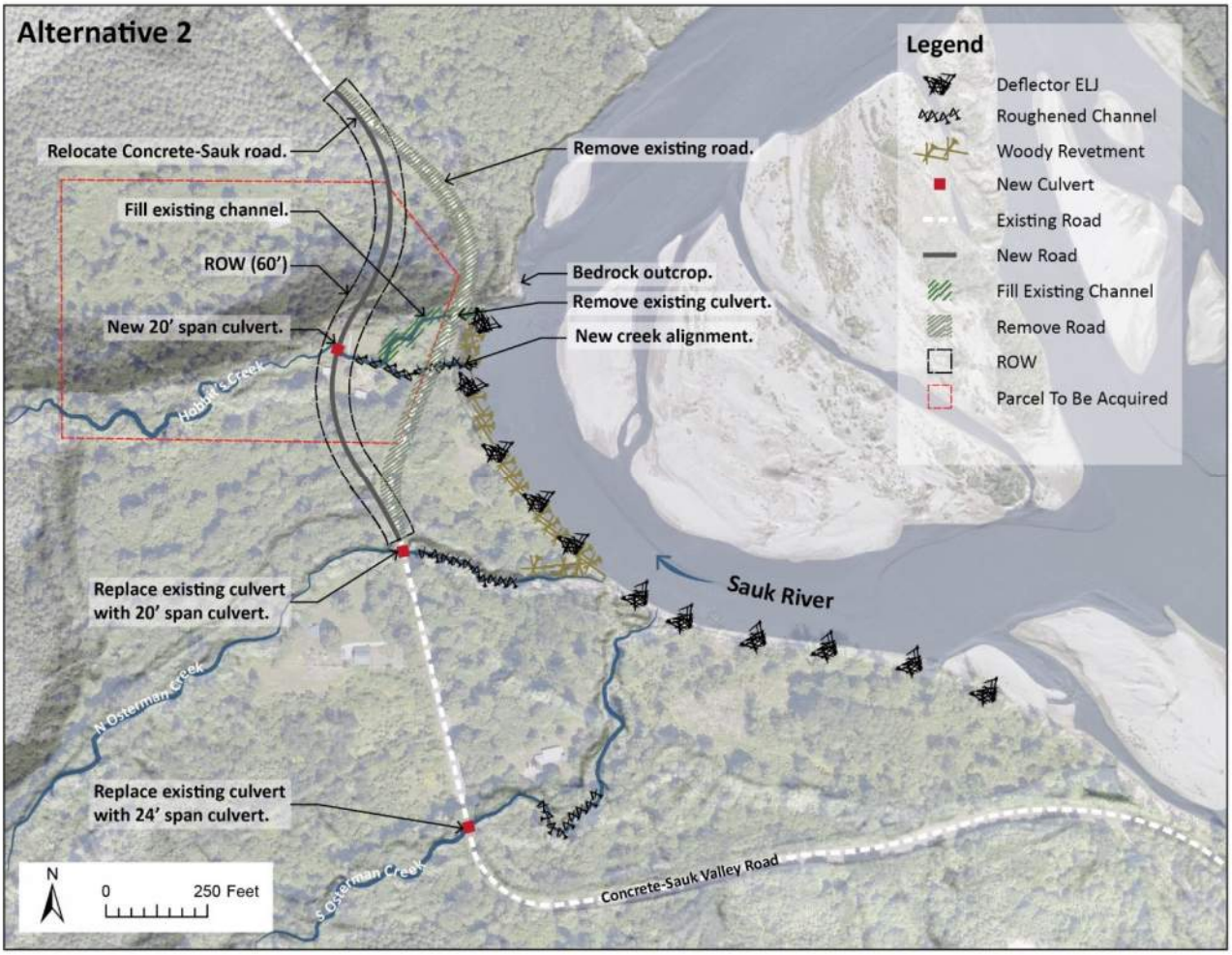


Figure 18. Proposed project actions for Alternative 2 of broader project (from NSD, 2019).

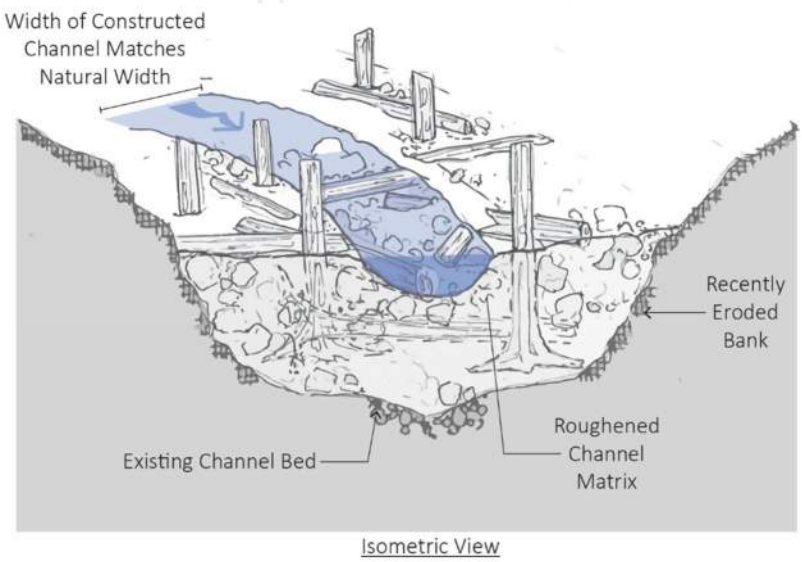


Figure 19. Conceptual depiction of grade control structures proposed as part of initial design effort (from NSD, 2019).

The County ultimately selected Alternative 2 as the preferred alternative (NSD, 2018 and 2019). Fully implementing all project actions included in Alternative 2 is a complex, costly, and time-intensive undertaking. SCPW elected to pursue advancing the design of the elements associated with restoring fish passage in both North and South Osterman Creeks while concurrently pursuing design and construction funding to implement road relocation, ELJ construction in the mainstem, and passage restoration at Hobbit's Creek. This approach allows for staged implementation of proposed project elements while maintaining flexibility to transition from Alternative 2 to Alternative 1 should the logistical issues associated with Alternative 2 prove insurmountable. This approach is not without risk as addressing fish passage issues in North and South Osterman does not include any actions to prevent further westward migration of the Sauk. The design of proposed project actions in North and South Osterman was developed to address the degree of expected future incision for the current extent of lateral migration, but does not include a contingency for further migration to the west (discussed in more detail below). Full implementation of all project actions is the best course to ensure that proposed project actions in North and South Osterman Creeks are protected from more severe incision conditions which could occur in the future if the mainstem migrates further west.

Fish Passage Restoration Design Development

The balance of this section discusses the additional analyses, consultation, and decisions which drove design development of fish passage concept development in North and South Osterman Creek. Design development focused on identifying a feasible fish passage restoration design which accomplished all project goals and objectives despite the extraordinary conditions and ongoing evolution of the project sites.

Field Data Collection

When the decision was made to advance design for a subset of project actions, several site assessments and investigations were conducted in support of this focused effort. A brief description of each field assessment and the data collected are provided below.

Topographic Survey

Wilson Engineering & Surveying (Wilson) collected topographic data in both North and South Osterman Creeks, as well as along Concrete-Sauk Valley Road, in August of 2020. Topographic survey in the creeks extended from approximately 150 feet upstream of each culvert to several hundreds of feet downstream of Concrete-Sauk Valley Road (400 feet downstream in North Osterman and 600 feet downstream in South Osterman). Wilson also collected points at pertinent planimetric features including invert elevations at the inlets and outlets of each culvert. Boundary survey of the existing right-of-way (ROW) was also performed. The surface information collected by Wilson was used to develop an updated topographic surface definition for each creek channel which served as the basis for hydraulic analyses and design development. Planimetric features documented during the site survey also informed the placement of certain design elements (e.g., access roads).

As a result of the high flow event in January 2021 that washed out a portion of the road, Wilson collected additional topographic data at the North Osterman crossing to update the surface definition and allow for updates in design quantities required. This supplemental survey was performed in August of 2021.

Design Approach Verification and Site Assessment

In September of 2020, NSD led a site assessment attended by representatives from SCPW, WDFW, the Upper Skagit Indian Tribe, and Skagit River System Cooperative with the express purpose of discussing the proposed design approach and collaboratively determining bankfull width (an important design input when using stream simulation design) in North and South Osterman Creeks. During this site assessment, several bankfull width

measurements were collaboratively collected in each creek; the average of these measurements was 13.1 feet, and 15.1 feet in North and South Osterman, respectively (NSD, 2020). These measured bankfull widths are similar to the previously measured bankfull widths using limited field measurements and they correlate well with equation C.1 from the Water Crossing Design Guidelines (WCDG) which predicts bankfull width based on watershed area and average annual precipitation.

During the site visit, NSD and project stakeholders reviewed site conditions and discussed the design of anticipated project actions including the use of grade control structures which use a matrix of streambed materials and wood intermixed. Results of a recently constructed project for which NSD used a similar approach were shared and discussed. Stakeholders were amenable to this approach but expressed a desire for the design to be resilient to ongoing and future incision.

As a follow-on to the site visit, NSD performed a second field assessment aimed at documenting the composition of channel substrate in each creek. NSD staff performed several pebble counts in each creek.

The information collected during these site visits was used for initial design decisions to refine the size of the culvert openings based on average bankfull width. The sediment data collected were not directly used in any design calculations but were used to inform selection of appropriate roughness parameters for existing conditions hydraulic modeling and to inform the understanding of sediment transport under existing and proposed conditions.

Geotechnical Investigation

GeoEngineers performed a geotechnical investigation at the project site, including two borings near each existing culvert. The type and general characteristics of soils encountered at each boring were documented and engineering properties were determined and summarized in a draft geotechnical report (GeoEngineers, 2021). Findings of the geotechnical investigation were directly used in several aspects of the design including structure foundation design and gulley bank stabilization.

A second site visit to North Osterman was conducted in October 2021. The purpose of this site visit was to confirm the validity of the geotechnical considerations included in design of North Osterman project elements.

Cultural Resources Investigation

As a subcontractor to NSD, Equinox Research and Consulting International (ERCI) completed a background review and archaeological field investigation of the project area in late July 2020 (ERCI, 2020) to support project design and permitting. ERCI completed eight shovel probes in high-probability areas, finding sediment profiles consisting entirely of alluvium or colluvium having been moved downstream and reworked by the creeks and by the Sauk River, particularly the leading edges of the alluvial fan. No cultural resources were encountered during the subsurface survey within the project area. ERCI identified a moderate risk of encountering archaeological deposits on the alluvial fan and in project areas away from the current alignment of the creeks. ERCI recommended that ultimate project construction proceed with Unanticipated Discoveries Protocol (UDP) training provided to the construction contractor and a professional archaeologist familiar with the UDP as an on-call resource for the duration of the work. The Cultural Resources Assessment report will be a component of the fish passage restoration project's application for construction permits.

Wetland and Ordinary High-Water Delineation

NSD wetland biologists completed a field investigation for wetlands and delineation of the Ordinary High-Water Mark (OHWM) in July 2020 to support project design and permitting. NSD characterized wetland and floodplain conditions within a study area encompassing the immediate vicinity of the two culverts, including the anticipated extent of downstream channel. They also performed streambank work to characterize the extent

and nature of any wetlands adjacent to both North and South Osterman Creeks, determine the OHWM, and characterize the riparian and associated fish and wildlife habitat conditions.

Approach

Wetland determination data were collected based on the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* [Regional Supplement] (Environmental Laboratory, 2010) data forms and the 2010 *Field Indicators of Hydric Soils in the United States, Version 7.0* (NRCS National Technical Committee for Hydric Soils, 2010). NSD collected 14 wetland determination sample plots across the project and collected supplemental soil samples at various locations in the delineation study area to verify findings.

NSD determined the OHWM downstream of the culverts by utilizing the modeled extent of inundation at an approximately 1.25-year flow event (i.e., 49 cfs in North Osterman Creek and 66 cfs in South Osterman Creek), coupled with the relative elevations and our field flagged location of the ordinary high-water mark within approximately 130 feet upstream of the North Osterman Creek culvert and approximately 100 feet upstream of the South Osterman Creek culvert. The OHWM field indicators considered (e.g., scour lines, flood debris and deposits, clean cobbles and gravels, significant changes in slope, vegetation community differences, water marks) were consistent with the procedures described in Ecology's Manual for Delineation of OHWM (Washington State Department of Ecology, 2016).

Conclusions

Based on the fieldwork conducted July 22, 2020, NSD concluded that two waters of the U.S. (North and South Osterman Creeks) are present in the study area, but no wetlands are present. Each of the wetland sample plots were in geomorphic locations thought to have potential to support wetlands (e.g., topographically low areas, areas on low benches along the stream channel). None of the sample plots met all three parameters necessary to be determined wetland (i.e., positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology). While most areas were dominated by hydrophytic vegetation, the well-drained soils failed to show the required indicators of hydric soil formation and wetland hydrology. Detailed descriptions of the sample plots and comparison with the wetland determination criteria are documented in the OHWM and Wetlands Assessment Report (NSD, 2020).

The OHWM of North Osterman Creek was mapped based on the field flags. We noted field indicators of OHWM including bank morphology/slope break, soil profile development, exposed tree and shrub roots, sediment deposition, and prevalence of vegetation intolerant of flow such as piggyback plant, vine maple, and red alder (Figure 20).



Figure 20. North Osterman Creek, upstream of culvert.

While field indicators were used upstream of the culvert, incision, erosion, and extensive bank failure have obscured the field indicators of OHWM downstream of the North Osterman culvert. We noted field indicators, such as vegetation species distribution, sediment lines, and wracking deposits where they were visible, and then determined the approximate OHWM downstream of the culvert based on the project's hydraulic model output. NSD overlaid the inundation extent of flows between the 1- and 2-year recurrence interval from the project's hydraulic model onto the project's relative elevation map (REM) and considered their alignment with areas of observable indicators and bank full width. In this manner, we settled on the modeled 1.25-year (49 cfs) flow and then made minor adjustments to ensure its extent coincided with observed field conditions downstream of the culvert.

The OHWM of South Osterman Creek upstream of the culvert was similarly mapped based on the field flags. We noted field indicators of OHWM including bank morphology/slope break, soil profile development, exposed tree and shrub roots, sediment deposition, and prevalence of woody vegetation marginally intolerant of flow, such as bigleaf maple, vine maple, and red alder (Figure 21).



Figure 21. South Osterman Creek, upstream of culvert.

Incision and extensive bank failure have similarly obscured the field indicators of OHWM downstream of the South Osterman Creek culvert. We noted field indicators such as vegetation, scour, and wracking deposits where they were visible, and then determined the approximate OHWM downstream of the culvert based on the project's hydraulic model output, in the same manner as applied at North Osterman, downstream of the culvert. In this manner, we settled on the modeled 1.25-year flow (66 cfs) flow extent as indicative of the OHWM downstream of the culvert.

Conceptual Design

The project elements related to restoring fish passage included in the preferred alternative served as the starting point for the current design effort focused on addressing fish passage issues at North and South Osterman creeks. The considerations and analyses discussed in this section describe how the design of these initial conceptual project elements was initially developed, as well as a discussion of how the initial concepts put forth during the alternatives analysis have advanced and evolved during the design effort.

Initial Design Effort and Alternatives Considered

Stream Simulation

NSD initially pursued the stream simulation design approach, as outlined in the WCDG (Barnard et al., 2013), to size replacement culverts and design channels through the proposed culverts.

Stream simulation design essentially attempts to mimic natural conditions found in channels with the underlying assumption that, if fish can successfully navigate the natural channel, then a constructed channel which mimics these same conditions will provide conditions which also allow for fish passage. In essence, the channel

dimensions, slope, planform, and bed composition of a natural channel are applied to the design channel. Stream simulation design was used to develop initial concepts for culvert replacements and associated designed channels at both North and South Osterman. However, application of this approach did not address all site conditions, due to the extreme site conditions present in each channel, namely the vertical discontinuities in slope associated with ongoing incision.

The WCDG establish guidelines for determining when and where the application of stream simulation design is appropriate and criteria to use during design. The most difficult of which to accommodate for the conditions in North and South Osterman Creeks is limiting the slope of the design channel to 1.25 times the slope of the natural channel. This criterion effectively limits the design slope of the proposed channel to 1.88% in North Osterman and 1.63% in South Osterman.

Grade Control

Applying a 1.88% maximum allowable slope to the proposed channel at North Osterman is not possible as the design profile would never intersect with the existing channel profile at any point prior to reaching the Sauk River, much less intersecting with the future incision profile (Figure 22). Given this complicating factor, NSD pursued a design which included elements of both stream simulation and grade control: stream simulation design was used for design of the channel through the proposed culvert, which was sized based on applicable minimum span requirements found in the WCDG, and then, a grade control structure was included in each channel downstream of the stream simulation channel. The location of the grade control structure in North Osterman Creek was immediately downstream of the stream simulation channel. In South Osterman Creek, the grade control structure was initially proposed for construction further downstream at the location of active knickpoints. The slope of these grade control structures was determined based on preliminary hydraulic analyses which approximated the energy dissipation factor (EDF) at various slopes; the initial slopes of the grade control structures were set at 8%. The proposed grade control structures were extended past the intersection with the channel bed and down to the future incision profile as a means of providing resiliency against future incision.

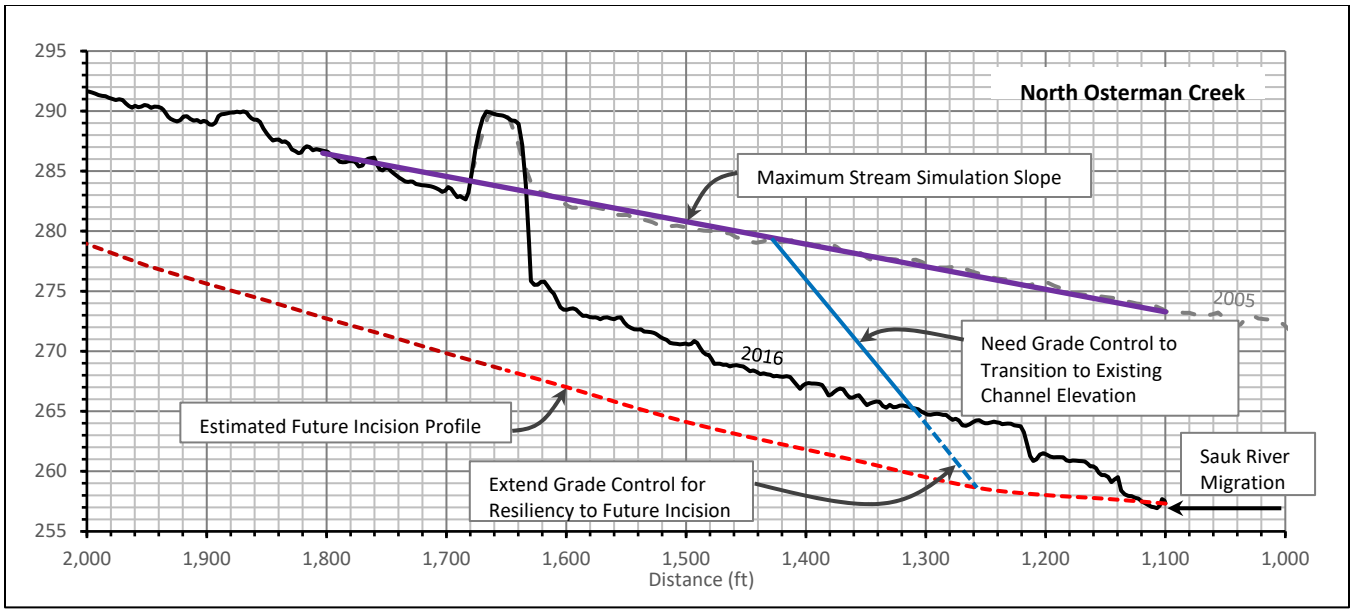


Figure 22. Longitudinal profile in North Osterman illustrating why application of stream simulation design alone is not adequate to achieve project goals.

Other Design Alternatives Considered

At the time the initial alternatives were being developed, our team also considered alternate approaches to achieving project goals, both of which required the use of bridges rather than culverts. The first alternate approach to addressing site conditions was to consider taking a hands-off approach and essentially let the natural incision occurring in the channels continue unchecked upstream until they naturally stabilize. Employing this approach would require construction of a large span bridge to accommodate the full depth of anticipated future incision and the associated slope layback as slopes erode and stabilize. Letting incision proceed upstream through a bridge is an approach which seeks to allow natural processes to occur unhindered by anthropogenic impacts, however there are several downsides to this approach. Biologically speaking, the progression of the existing headcuts upstream would require some unknown amount of time prior to stabilizing, with the fish passage barrier remaining for a consequently unknown period. Headcuts are likely to progress upstream episodically and there is a good possibility that the location of a headcut at any point could still be a fish passage barrier albeit relocated some distance upstream. Aquatic habitat in the channel segment downstream of the progressing headcut would likely be negatively impacted for at least several years until channel conditions stabilize and riparian vegetation is naturally reestablished.

Secondly, the widening and gulley formation associated with upstream incision progression would have detrimental effects to existing riparian vegetation upstream of the road which would occur almost entirely on private property. At least one existing residential structure on private property could potentially be impacted by gulley widening and an adjacent forest road along North Osterman could also potentially be affected.

Lastly, the financial implications of constructing a large span bridge at both North and South Osterman drastically reduces the likelihood of implementing any project action due to funding constraints. During the initial alternatives analysis, TranTech estimated a unit cost of $300 per square foot of bridge surface for bridge construction given the type, size, and location required should the bridge alternative be pursued. The span necessary for each bridge was estimated by applying representative channel dimensions for each channel, including minimal space for floodplain benches on either side of the channel, and extending bank slopes at the recommended stable slope from the geotechnical report (2H:1V). The channel template was then lowered until

the thalweg elevation intersected the future incision profile generated earlier; bridge spans were extended past the intersection of the existing road profile and the future channel banks to account for some uncertainty in this analysis as well as to allow for construction of foundation elements outside the footprint of anticipated slope layback (Figure 23 and Figure 24). Given the road width required for Concrete-Sauk Valley Road and the estimated spans of 105 feet for North Osterman and 110 feet for South Osterman, the cost of the bridges required is estimated at $976,500 and $1,023,000 at North Osterman and South Osterman, respectively, without accounting for any embankment stabilization or scour protection measures. Given the low ADT for Concrete Sauk Valley Road, acquiring federal, state, or local funding of this magnitude is extremely challenging and as a result, the likelihood of implementing project actions using this approach is low.

We also considered a version of the stream simulation approach which uses the lower elevation of the channel downstream of the road as the driver for proposed profile development. This approach would essentially establish a profile based on the anticipated natural slope with the exception that the downstream end of the profile would be set based on the future incision profiles developed for each channel. Similar to the difficulties encountered when trying to apply the maximum allowable stream simulation slope when holding the upstream end of the proposed profile at existing elevation, applying the maximum slope from the downstream end results in a profile which never intersects with the existing profile upstream of the road. As a result, this alternative would also require construction of grade control structures to transition from the existing profile down to the design profile (approximated as the future incision profile), but in this case they would be constructed upstream of the road instead of downstream. This alternative would require drastic increases in excavation associated with laying back banks at a stable slope, as well as potentially over-excavating to allow for placement of imported streambed material.

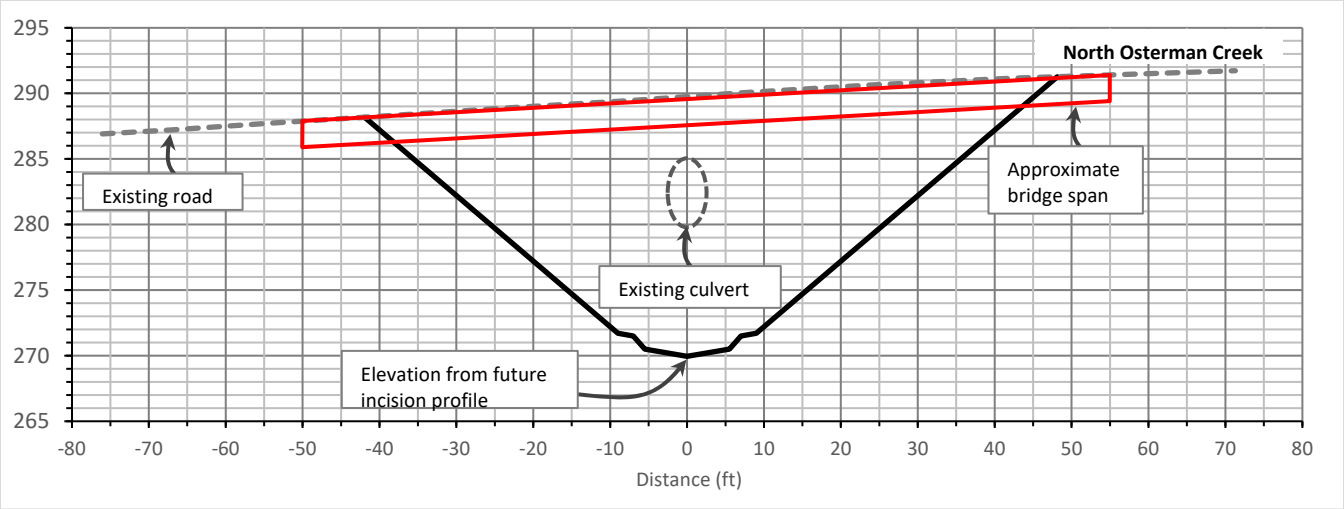


Figure 23. Graphical depiction of bridge alternative at North Osterman.

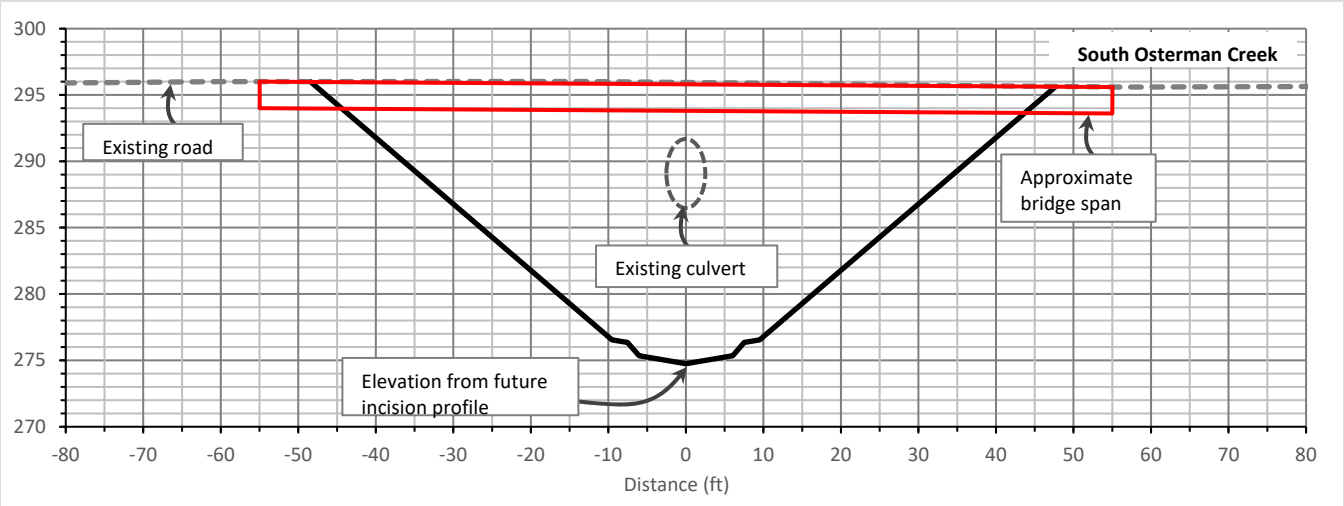


Figure 24. Graphical depiction of bridge alternative at South Osterman.

Variations of and Refinements Design Concepts

After consideration of the above alternative design options, a second "conceptual" design effort, focused solely on North and South Osterman, was initiated in the second half of 2020. As part of this effort, the culvert spans were revised from the initial concepts based on the field measured bankfull widths to correspond with the minimum recommended span. Specific channel dimensions for the channel upstream and through the culvert were developed based on field observations, measured bankfull width, and site-specific topographic survey. When the updated topographic survey was conducted in 2020, we were able to directly compare recently surveyed elevations to elevations from a number of years ago (LiDAR from 2016). This comparison illustrated just how rapidly incision was progressing in each system. In North Osterman, elevations suggested that incision had nearly reached our estimated lowest elevation for a good portion of the channel downstream of the road with the exception of approximately 80 feet immediately downstream of the existing culvert. Recent observations have been consistent with this conclusion, though plunge scour resulting from the large drop at the outlet of the existing culvert coupled with high flows have resulting in rapid progression of erosion through most

of the roadway embankment with failure of the entire roadway anticipated to occur within days to weeks at the time of publication for this report.

In South Osterman, it appears that one of the three knickpoints in the profile downstream of the road has migrated up to the road. This progression of incision in South Osterman directly led to a modified version of the first conceptual design which included moving the grade control structure in South Osterman upstream to begin at the downstream end of the stream simulation channel through the proposed culvert at South Osterman. These modified conceptual designs were utilized as the first iteration of proposed conditions analyzed in the iterative hydraulic analysis described below.

Hydrologic and Hydraulic Analyses

To inform design decisions and document conformance with design standards, a hydrologic and hydraulic assessment of existing and proposed conditions was performed. The results of the hydraulic analysis were directly used to inform design modifications and they were also used in channel bed and stability calculations. A summary of the methods and results of the analyses performed is included in this section.

Hydrologic Investigation

No historical flow records or hydrologic data of any kind could be located for North or South Osterman to support hydrologic analyses for this project; this is not particularly surprising given the relatively small drainage area for each basin of 1.0 and 1.4 square miles for North and South Osterman, respectively. For the design of any fish passage project, several flows of interest are typically estimated for use in analysis and design. Perhaps the two most important flows to consider when designing a stream simulation channel are the “bankfull” flow and the 100-year flood. The Washington State Department of Transportation (WSDOT) Hydraulics Manual (WSDOT, 2019) which applies to this project has minimum freeboard requirements for the 100-year flow, and as such, a reasonable estimate of the magnitude of this event is important. Once identified, these flows can be run through a hydraulic model representing proposed conditions to see how flow changes, if at all, when routed through the proposed channel.

In addition to the bankfull and 100-year events, several other design flows were generated for this project to help support analysis and verification of the design for the grade control structures which require a steeper slope beyond what is considered an appropriate slope for stream simulation design. The over-steepened grade control structures proposed for use are most similar to constructed cascades which are subject to separate design criteria and require estimation of additional design flows, namely the high fish passage flow, estimated as the 10% exceedance flow for the month of January.

Given the lack of historical streamflow data, published regression equations were utilized to generate estimates of several key flows. For peak flows of interest, the United States Geological Survey (USGS) regression equations for Washington State (Mastin et al., 2016) were used. These regression equations rely on drainage area and mean annual precipitation to estimate the magnitude of several peak flows ranging from the 2-year up to the 500-year event. The regression equations utilized inherently include some uncertainty; to account for this uncertainty in estimating the 100-year flow, the WCDG call for increasing the magnitude of the estimated 100-year event by one full standard error. Estimated peak flows relevant to this project are included in Table 1.

A separate regression equation published by WDFW was utilized to generate an estimate of the high fish passage flow (Barnard et al., 2013). Similar to the regression equations used to estimate peak flows of interest, the regression equation used to estimate the high fish passage flow uses drainage area and mean annual precipitation. The estimated high fish passage flow for each creek are listed in Table 1.

Table 1. Flow estimates generated using regression equations for use in design.

Return Interval	North Osterman Flow (cfs)	South Osterman Flow (cfs)
High Fish Passage Flow	19	26
2-yr	61	82
100-yr	184	249
100-yr + 1 S.E.	277	375

The flows listed in Table 1 were used as inflows to the hydraulic model discussed in the following section. It is worth noting that site observations suggest that during late summer surface flow in both North and South Osterman ceases to exist with flow effectively dropping to zero and no observable flow conveyance above the channel bed. Given this observation, no low flow fish passage flow was estimated for either creek.

Lastly, in order to approximate bankfull flow, estimated peak discharges were plotted against their corresponding return interval for each. Logarithmic trendlines were fitted to the dataset and extended to cover the return intervals which correspond with bankfull flows typical of the Skagit and Nooksack basins (estimated as 1.25-yr to 1.5-yr from Castro and Jackson, 2001). This rough estimate of bankfull flow resulted in bankfull flow estimates ranging from 49 to 54 cfs in North Osterman and 66 to 74 cfs in South Osterman.

Hydraulic Analysis

A hydraulic model for each creek was developed to analyze effects of proposed conditions on reach hydraulics. The hydraulic models utilized for each creek were one-dimensional (1-D) hydraulic models developed using HEC-RAS version 5.0.7. An existing conditions hydraulic model was developed for each creek utilizing a composite digital elevation model (DEM) provided by Wilson which combined 2020 survey with 2016 LiDAR. For the existing conditions model, cross-sections were established perpendicular to the flow direction throughout the modeled reach and the existing culverts were also included. Steady state hydraulic simulations were performed at several flows of interest. Lacking any water surface elevation data to calibrate to, roughness values for the existing conditions model were developed based on published guidance (Brunner, 2016; Jarrett, 1985), sediment size distributions from pebble counts, and professional judgment. The existing conditions hydraulic models were not used directly in any design calculations but rather served to improve our understanding of hydraulic conditions within each creek under existing conditions.

Proposed conditions hydraulic models for each creek were developed in a similar manner as the existing conditions models. A proposed surface DEM was generated by modifying the existing conditions composite DEM provided by Wilson to include representations of proposed design elements. The channel dimensions, slopes, bank grading, as well as proposed culverts (represented as vertical surfaces at the inside of culvert walls) and wingwalls were all included in the proposed conditions DEM (Figure 25). An open-channel approach to representing the proposed culverts was utilized for proposed conditions hydraulic models rather than utilizing the culvert routine within HEC-RAS. This approach was utilized to allow for establishing cross-sections within the proposed culvert, improving our understanding of hydraulics within the culvert, as hydraulic conditions within the culvert can be queried, rather than just upstream and downstream. Another benefit of this approach is that simulated water surface elevations can be calculated without inputting an assumed culvert rise; rather, the culvert rise is sized based on hydraulic results to ensure adequate freeboard.

The proposed conditions hydraulic models were updated iteratively as appropriate to support and inform design decisions and calculations. As changes to the design were implemented, the hydraulic models of proposed conditions were also updated, and specific design criteria were either verified or another round of design modifications and subsequent modeling was performed. Design refinement in this iterative fashion continued until design criteria and project goals were met.

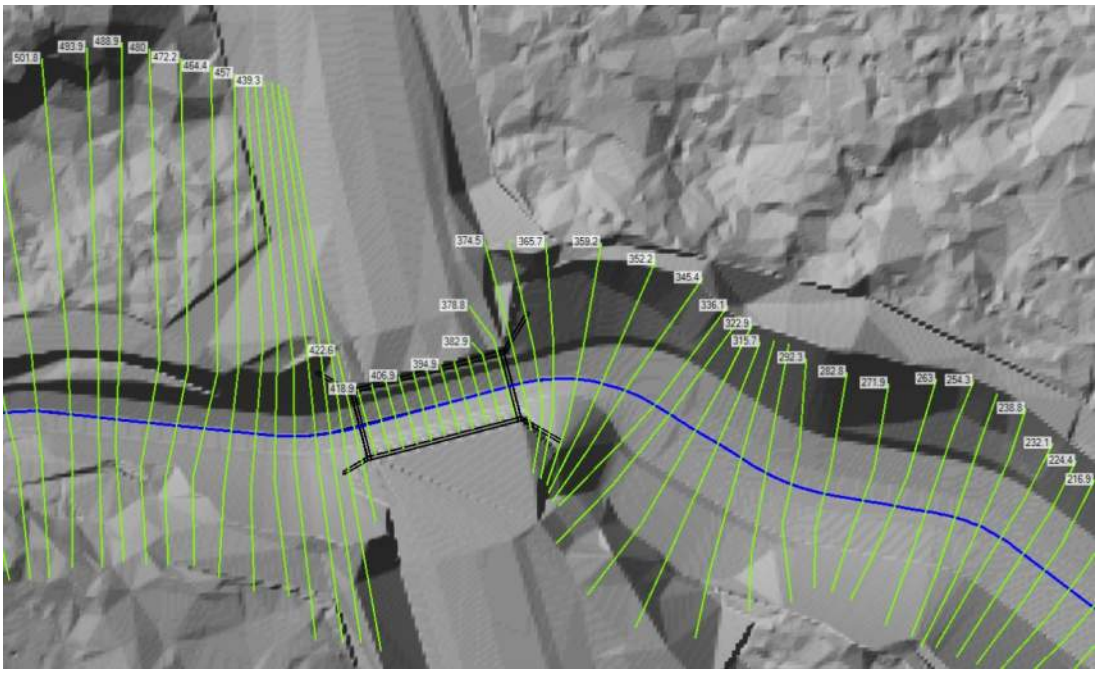


Figure 25. Proposed conditions DEM and model geometry for North Osterman.

Channel Bed Mix Design

Design of a stable bed mix is essential for project success and site stability. The proposed channels utilize a combination of rock-only constructed cascades (upstream of and through each proposed culvert) with grade control structures which introduce wood into this same bed mix downstream of each proposed culvert. The grade control structures utilize a complex matrix of large key logs with rootwads and racking logs (smaller diameter and length logs) which are all intermixed to drastically increase hydraulic roughness; we refer to this design as a log-boulder step-pool (LBSP). The LBSP is an innovative design approach which we have used recently on several projects with excellent success. Given the pioneering nature of this design approach, there are no prescriptive design criteria which have been developed. The concept of the LBSP is to dramatically increase hydraulic roughness and effectively increase energy dissipation.

The energy dissipation achieved in the LBSP relies on shear stress partitioning and increased flow length to provide a channel with diverse hydraulic conditions capable of providing fish passage. The ability of wood to increase hydraulic roughness has been well documented; the presence of wood within a stream has been shown to reduce average velocity, elevate local water surface elevations, and provide a proportionally larger flow resistance compared to the area occupied by wood (Gippel, 1995; Manga and Kirchner, 2000). Our proposed design leverages these properties of wood to create a hydraulically diverse channel wherein flow direction is constantly influenced by the presence of wood and the preferential flow path or paths regularly change direction over short distances. The constant changing in flow direction, inherent in the design of our LBSP, effectively increases the length of the channel, reducing the local water surface slope, and providing complex cover and resting habitat for fish and other aquatic species. On a recently constructed project using similar slopes as those proposed for this project, a LBSP provided enough hydraulic influence, that at several locations within the LBSP, flow changed direction so dramatically that for a short length the direction of flow was actually upstream (Figure 26).



Figure 26. Example of recently constructed LBSP on South Prairie Creek with diverse hydraulic conditions and complex flow paths.

The WCDG provide guidelines for bed design using several approaches. Bed design typically relies on identifying a particle size which remains stable during the design flow then developing an appropriately graded streambed mix using generally accepted ratios. For this project, we took the approach of designing a single stable channel bed which could be placed in both designed channels; model results indicated that hydraulic conditions within South Osterman Creek are slightly more severe than in North Osterman, so results from the proposed conditions model of South Osterman were used to develop a stable bed mix for both channels. The stable particle size used as the basis for the channel bed design was the D_{84}, or the particle which represents the 84th percentile for average diameter in the design mix. Several approaches included in the WCDG for sizing the D_{84} were compared including Bathurst, Costa, critical shear stress, and using the USACE riprap sizing approach. The stable D_{84} using these approaches ranged from 1.2 to 2.0 feet; we selected 1.8 feet from this range and applied a factor of safety of 1.1 to this value, effectively increasing our selected stable particle size to correlate with the largest value calculated using the approaches utilized.

Once a stable particle size was determined, the remainder of the channel bed mix was determined using a combination of published guidance and professional judgment. An initial design gradation was determined using ratios provided in equations 3.6 through 3.8 of the WCDG (Barnard et al., 2013) which relate the diameter of the D_{84} to the diameter of the D_{100}, the D_{50}, and the D_{16} in an idealized gradation curve. Once this initial curve was developed, the gradation was modified by adjusting the Fuller-Thompson equation parameter to help ensure that the design mix has adequate fine materials to ensure flow is conveyed above the finished channel bed. A final design gradation for the stable channel mix is summarized in Table 2. As an added measure to ensure that the finished channel bed is “sealed” (i.e., no flow is conveyed subsurface), the construction contract will include

a bid item and associated specification for the application of additional streambed sand to aid in sealing the finished channel bed.

Table 2. Design Channel Bed Mix

Percent Passing	Particle Size (inches)
100	48
84	22 – 26
50	7 – 11
16	0.75 – 1.5
10	0.25 – 0.5
5 min.	No. 200 Sieve

The methods utilized to design the stable channel bed mix do not account for the shear stress partitioning or energy dissipation provided by wood and are therefore, appropriate for the rock-only constructed cascades proposed upstream and through the proposed culverts. Our design takes a conservative approach of utilizing this same stable bed mix within the LBSP elements in North and South Osterman. Lastly, within the constructed cascades, our design includes the addition of boulder sills (larger than the stable particle size) placed in strategic locations and orientations to redirect preferential flow paths, dissipate energy, and provide additional hydraulic complexity in the portions of the channel which are constructed entirely of rock.

Scour Calculations

An assessment of potential scour at each replacement culvert was conducted to verify that foundation depths are not susceptible to failure should scour occur. When analyzing scour at culverts, there are typically three major scour mechanisms which can contribute to scour: long-term degradation, contraction scour, and local scour at piers or abutments (typically reserved for bridges). The total scour depth is then estimated as the sum of the three individual scour components (Arneson, et al., 2012).

Long-term degradation can be thought of as a lowering or scouring of the streambed due to natural or anthropogenic causes. The site conditions at North and South Osterman are unique in that they have been actively degrading over recent years. The design of proposed project elements is predicated on the assumption that no further westward migration of the Sauk occurs due to the influence of anticipated future project actions (i.e., mainstem ELJs and woody revetments). There is an inherent risk in implementing the project actions in North and South Osterman prior to the mainstem actions associated with the broader project, but given the current site conditions and funding hurdles, this is a risk that SCPW is willing to take.

Application of this assumption in design means that a renewed incision period need not be considered, but that any remaining incision associated with the latest peak of westward migration (approximately 2017) should be considered. As discussed earlier, estimates of long-term degradation were established for each tributary; in North Osterman, the anticipated incision has largely occurred, and no further degradation is anticipated. In South Osterman, approximately 4-5 feet of future degradation are anticipated; however, project elements included in the design are anticipated to effectively halt this degradation prior to reaching the replacement culvert. For these reasons, long-term degradation is not anticipated to occur at the site and is not considered to contribute to total scour.

Contraction scour is a lowering of the streambed at the crossing structure which results from contraction of the flow to a smaller area and causes the streambed to become mobile. Contraction scour could possibly occur if flow is indeed constricted during the design event (100-year flood). For this reason, contraction scour could possibly contribute to total scour and was estimated using procedures identified in HEC-18 (Arneson, et al., 2012). First, an estimate of critical velocity for the design bed material was made to determine if clear-water or

live-bed conditions are present. The design streambed mix was used for this determination. Equation 6.1 was used to determine critical velocity in each stream for the design channel bed mix; using average depths of 2.4 ft in North Osterman and 2.7 ft in South Osterman, critical velocities of 11.7 ft/sec and 12.0 ft/sec were calculated for North and South Osterman, respectively. Approach velocities, as well as velocities through the proposed culverts, are below these critical velocities meaning that clear-water scour conditions are present.

General clear-water contraction scour was then estimated using HEC-18 equations 6.4 and 6.5. Inputs to equations were selected from sampling the composite proposed surface topography and querying hydraulic model results. The calculated contraction scour under proposed conditions is very minimal at 0 ft in North Osterman and 0.1 ft in South Osterman. These calculated scour depths are likely, due to the fact that with the proposed design, little actual flow contraction occurs at the proposed culverts. Nevertheless, the estimates of general clear-water contraction scour were considered to contribute to total scour for purposes of this analysis.

Local scour occurs when vortices form around piers, abutments, embankments, and other infrastructure obstructing flow. For clear-water conditions, HEC-18 provides a method for estimating scour at culvert inlet corners in open-bottom culverts. Given the design bed thickness for our project, we assumed that our proposed box culverts effectively act as open-bottom culverts and equations 6.10 and 6.11 were used to estimate local clear-water scour at the culvert entrance corners. Proposed conditions hydraulic model results were queried to determine inputs to the equations; calculated local scour at culvert inlet corners was calculated as 2.2 ft for North Osterman and 2.6 ft for South Osterman.

The total predicted scour at the proposed culvert is summarized in Table 3. The design bed mix itself is thicker than the calculated scour at the design event and foundation depths for the proposed culverts are set deeper than the estimated total scour depth for each culvert. As such, the proposed structures are well protected against potential scour during the design event.

Table 3. Calculated scour depths under proposed conditions.

Scour Type	Sour Depth (ft)	
	North Osterman	South Osterman
Long-Term Degradation	0.0	0.0
Contraction Scour	0.0	0.1
Local Scour (culvert inlet)	2.2	2.6
TOTAL SCOUR	**2.2**	**2.7**

Design Modifications Driven by Hydrologic and Hydraulic Analysis Results

The biggest design modification resulting from the iterative hydraulic modeling process were the modifications to the proposed channel profiles. WSDOT design criteria for freeboard height vary by culvert size: for culverts with spans less than 20 feet, the required freeboard is 2 feet above the 100-year water surface elevation, while for culverts with spans greater than 20 feet, this requirement increases to 3 feet. Minimum required freeboard for our proposed culverts is then 2 feet at North Osterman and 3 feet at South Osterman.

A separate vertical clearance requirement by WSDOT is the minimum cover over a new culvert. WSDOT design standards allow for two grading options that may be applied to this project. The first grading option is for conditions where the distance from the driving surface to the upper limit of the culvert is 2-feet or less. In this condition, following WSDOT's Bridge Design Manual Section 8.3.6.A.2, the concentrated structural live-load requires installing concrete approach slabs and other constructed elements that measurably increase the overall cost of each culvert. Alternatively, when the distance from the driving surface to the upper limit of the culvert is greater than 2-feet, the structural live-load is more uniformly distributed across the structure, and accordingly,

constructed elements, such as approach slabs, may be eliminated. To reduce construction costs, at both culvert locations, the design calls for a depth greater than 2-feet between these two surfaces.

Collectively, the freeboard and minimum cover requirements establish minimum heights above the 100-year water surface elevation for the road surface by 4 feet at North Osterman and 5 feet at South Osterman. When the lid thicknesses of the proposed culverts are considered, this amount increases further. Preliminary hydraulic model results indicated flow depths of approximately 3 feet at the 100-year event. When the flow depth, minimum freeboard, lid thickness, and minimum cover were applied to the initial concepts, the result was a significant and costly modification to the vertical profile of the existing road.

Using stream simulation design through the proposed culverts would require raising the road by approximately 1.5 to 2.0 feet at North Osterman and 0.25 to 0.75 feet at South Osterman (the exact amount depends on channel design refinements). These adjustments to the vertical profile of Concrete-Sauk Valley Road are difficult to implement due to the existing geometry of the road. In both instances, the roadway alignment and profile are experiencing a transition in superelevation, as well as vertical curvature, respectively. Even though the proposed invert slope of each culvert is zero percent, the design depth from driving surface to the upper limits of the proposed culvert is different at each of its four corners. This results in the limiting corner for the culvert at South Osterman Creek to be the southeast corner and the northeast corner for North Osterman Creek. If construction of the two culverts requires adjustment of the roadway profile, a significant amount of pavement would require reconstruction to again bring all the roadway design elements in conformance with the minimum requirements of AASHTO and WSDOT for Rural Minor Collectors.

For these reasons, a modified version of the channel design was pursued which essentially moved the grade control structure in each creek upstream. Moving the grade control structures upstream and utilizing them through the culvert allowed us to accommodate all applicable design criteria and requirements without costly adjustments to the vertical and/or horizontal geometry of the existing road. A single slope for the grade control structure was utilized to transition from the upstream channel to the downstream channel in each creek. When this change was made, the original channel geometry and proposed culvert spans were retained. The design of the grade control structures themselves was also effectively split into a rock-only constructed cascade which was used upstream and through the proposed culverts with the LBSP beginning immediately downstream of each proposed culvert. These proposed modifications were modeled and refined iteratively until a stable channel bed, capable of meeting the vertical clearance requirements stated earlier, was achieved for each creek. As part of this iterative design refinement process, the slope of each grade control structure was lowered from the initial 8% to 6.5% in North Osterman and 5.0% in South Osterman.

Preliminary Design

Refined conceptual designs were presented to SCPW in late 2020. The design process continued following this submittal with a focus on advancing the design of project elements for each creek and development of a preliminary design package.. Comments from SCPW, as well as an internal review, led to several design refinements implemented as part of the preliminary design process; these modifications to the design are briefly discussed below.

Channel Design

Several changes were implemented during development of preliminary designs related to the channel design elements of the project. The primary change to the design is related to future incision countermeasures. On the refined conceptual plans, each channel included an extension of the LBSP which was set at a steeper slope of 10% and was countersunk below the existing channel bed elevation (i.e., a “buried channel toe”) down the to

the elevation of the estimated future incision profile. This approach was discussed internally and reviewed from a construction feasibility standpoint.

The amount of excavation required to construct this "buried channel toe" is the main hurdle from a construction feasibility standpoint. A large volume of material (more than 1,000 cubic yards) is estimated to be excavated at South Osterman to countersink the buried toe alone. Approximately half of this material would have to be retained and used to reconstruct a channel over the full length of the buried toe; meaning that existing material would have to be double handled to construct a channel which we fully expect to erode due to future incision. The cost of implementing incision countermeasures in this manner simply did not seem worth the benefits. However, the stability of each channel is dependent on their ability to withstand any future incision, which we fully expect to occur, especially in South Osterman. As such, an alternate, lower cost and lower impact version of future incision countermeasures was developed and included in the preliminary design.

Rather than excavating to countersink the LBSP to create a buried channel toe, preliminary designs were updated to include an extension of the LBSP at existing grade after the prevailing slope intersects with the existing channel bed which is intended to self-settle as future incision occurs. The length of the extended LBSP constructed at existing grade was determined by determining the point at which the prevailing slope of the LBSP would intersect with the estimated future incision profiles for each creek. The surface treatment was then extended to a point which will allow the LBSP to self-settle at the design slope, a slope at which we are confident will provide fish passage. This approach is an unproven, but innovative method, to provide cost-effective countermeasures to future incision. Given the inherent uncertainty in this approach, the design calls for increasing the thickness of the extended LBSP treatments from 4 feet to 6 feet over the furthest downstream 50 feet in North Osterman and 150 feet in South Osterman.

The second channel design change implemented as part of the preliminary design process is related to the placement of wood downstream of the culvert outlets. The proposed LBSPs will provide large increases in hydraulic roughness and could potentially rack any debris which has made its way through the culvert. To avoid potentially racking debris immediately at the culvert outlet, the starting location of the LBSP was moved downstream in each channel approximately 20 feet from those included in the refined conceptual design. Additional pile-supported single log structures and slash wattles were added intermittently as appropriate near the toe of the proposed slope layback to provide additional protection from flowing water during high flow events.

Lastly, based on discussions with project stakeholders (USIT and SRSC), two additional, habitat-focused changes to the channel design were implemented as part of the preliminary design process. First, several bank-oriented habitat logs were added to the portion of the new channels constructed upstream of proposed culverts. Secondly, the channel bed mix was modified to include slash material (small woody debris composed of small branches, limbs, tree tops, etc.). Both of these modifications stem directly from comments provided by USIT in regard to concerns of creating a somewhat "sterile" channel environment in the portion of the rock-only constructed cascade. As a starting point for preliminary designs, the bed mix was modified to include slash material at 5% by volume for the portion of the channel bed upstream of and through the new culverts.

Engineered Log Jam Design

Design of Engineered Log Jams (ELJs) was based primarily on the Bureau of Reclamation's Large Woody Material Risk-Based Design Guidelines (Knutson & Fealko, 2014). The Risk-Based Design Guidelines (RBDG) rely on a characterization of public safety risk and property damage risk. For Preliminary Design, these were estimated to be low for both categories corresponding to a design flow of the 10-year event and factors-of-safety (FOSs) of 1.5 for buoyancy, and 1.25 for sliding. Additionally, in order to comply with Washington State law which exempts landowners from civil liability resulting from habitat projects which are performed on their land (RCW

77.85.050), all ELJs are also designed to be stable during the 100-year flood. A conservative approach was taken to ELJ design, and the FOSs identified in the RBDG for the 25-year design event were applied to the 100-year event. Additionally, given that the ELJs are primarily pile-supported, an analysis of pile capacity and failure due to bending was included in the stability analysis; this additional analysis is not required per RBDG recommendations so no FOS recommendation is included in the RBDG. For this project, the FOS for sliding (1.25) was also applied to the pile bending capacity analysis.

A summary of the minimum and design FOSs for each ELJ type utilized on this project is include in Table X. Calculations for the slash wattle assumed no major change in flow direction (so only the cross-sectional area of the wattle is subjected to hydraulic forces). Similarly, calculations for the bank rootwad assumed that the minimum 1-foot of backfill over the embedded portion of the log remains in place.

Table 4. Required and Design Factors of Safety for ELJs.

ELJ Type	Buoyancy		Sliding		Pile Bending	
	REQ'D FOS	DESIGN FOS	REQ'D FOS	DESIGN FOS	REQ'D FOS	DESIGN FOS
Bank Rootwad	1.5	1.6	1.25	6.9	1.5	1.5
Slash Wattle	1.5	9.7	1.25	2.6	1.5	1.5
Log Triangle	1.5	3.1	1.25	7.9	1.5	1.5
Log Triangle including Rock Collar	1.5	1.5	1.25	6.9	1.5	1.5

Roadway and Structural Design

Existing Traffic Volumes were requested to be collected by the SCPW. Data were collected Tuesday, June 26, and Thursday, June 28, 2018, tabulated and provided to the Consultant. From these data, the Average Daily Traffic (ADT) of vehicles carried by a roadway was 120. As this value is measured over a 24-hour period, on average, five vehicles use Concrete-Sauk Valley Road every hour of the day, more in the daytime, fewer at night.

Also, from these data, the percentage of trucks (Class #5 or higher) averaged 9.2% for the two days. Typically, at this percentage, considerations are to be made for a thicker pavement section. Though this is a relatively high percentage of trucks, given the overall traffic volume, this equates to just 11 trucks a day. The volume of heavy trucks was reviewed by the geotechnical engineer and did not warrant any special design accommodations.

Lastly, with culverts and bridges, the standard design life is 75 years. We considered the traffic volume and applied three different land-use planning growth rates of 1.0%, 1.5%, and 2.0%. Only with a 2.0% growth rate does the traffic volume exceed the 400 ADT threshold. A 2.0% growth rate exceeds population growth rates in the general area identified in the Skagit Council of Government's 2018 Growth Monitoring Report for unincorporated areas surrounding Concrete, WA. This is the closest planning area to the project site evaluated by SCOG, and it shows that between 2000 and 2018, the unincorporated area population grew at an annual rate of only 1.25%. It is therefore anticipated that ADT will not exceed 400 vehicles during the design life of the project.

Following the 2000 Skagit County Road Standards, Figure B-5 "Rural Major & Minor Collector Roadway Section – ADT Under 401" was selected. This section applies to all reconstructed areas of the roadway as part of the culvert replacement process. It includes two paved 11-foot wide travel lanes and two 3-foot wide paved shoulders. The proposed pavement section is 2-inches of HMA over 2-inches of Crushed Surfacing Top Course over 10-inches of Gravel Base. This pavement section was reviewed by the geotechnical engineer and will meet design requirements for the project's forecasted traffic volumes. While the culvert has a design life of 75 years,

the standard pavement section has a design life of 20 years. It is expected that the County will continue its chip-sealing maintenance program on this roadway to preserve the paved surface during its service life.

As currently proposed, the roadway alignment and profile will remain unchanged as part of the culvert replacement project. With this understanding, the pavement to be replaced through the project will mimic existing conditions for superelevation grades, transitions, limits, as well as matching existing profile grades. While the County desires a design speed of 35 mph through the project corridor, it cannot be achieved within the current scope of this project.

Final Design

Preliminary designs were provided to SCPW and distributed for review in late April of 2021. Comments received on that submittal were provided by SCPW and WDFW. One of the primary concerns voiced by WDFW on the preliminary plans was the design slopes used in both North and South Osterman. The design team held several meetings with WDFW and SCPW to discuss the proposed design of the channels, the reasoning behind selection of the proposed channel slopes, review of specific design elements, and examples of similar projects in Washington State which NSD recently implemented. As a result of these meetings and subsequent correspondence we moved forward with the understanding that the proposed design slopes are acceptable, but that WDFW would permit the project as an “alternative design” given the relatively unproven nature of the proposed design and lack of current design guidance.

North Osterman Update

While final designs were being developed, the continued erosion at North Osterman caused several pauses and regular discussions among the design team. Supplemental topographic survey collected in August of 2021 was used to update the preliminary plans with the intent of modifying the construction quantities from the preliminary design and sticking with the same overall design used in the preliminary plans.

The recent and rapid progression of erosion that occurred between August and late-October 2021 quickly became a top priority for the design team near completion of draft final design deliverables. When site conditions indicated that the road would likely not last through the upcoming high flow season the design team convened to discuss options for temporary stabilization. A supporting site visit was conducted two days later and findings of that visit were used to inform design of temporary stabilization options. Given the state of the road at the time the decision was made to investigate temporary stabilization measures, the cost of said measures was estimated to be in the ballpark of $60K-$80K; as an alternative to these measures, SCPW also had the option of extending the temporary bridge over the North Osterman washout by an additional 20 feet at a similar cost.

After weighing different options and the costs, benefits, and implications on the permanent fix. A complicating factor for this analysis was the rate at which this ongoing erosion was occurring. Between mid-October 2021 and the date of publication for this report the face of the upstream scarp progressed upstream approximately an additional 4 feet, leaving very little road embankment remaining. The time required to fully design and implement suitable temporary stabilization measures may not be feasible and the road could fail before then. After considering all of these factors, SCPW elected to pursue extension of the temporary bridge as the most cost-effective means of retaining at least one-way traffic on Concrete-Sauk Valley Road. In conjunction with this decision, SCPW simultaneously decided to modify the design from a culvert to a bridge. When the road at the North Osterman crossing was partially washed out in January 2021, SCPW sought emergency funding through FEMA and has since secured funding to support design and construction of a permanent fix at North Osterman. This funding significantly changes the original working assumptions used in the original alternatives analysis when the decision was made to utilize a culvert in conjunction with fish friendly grade control. Switching to a

bridge at North Osterman will provide additional certainty and resiliency to changes in the mainstem Sauk. Given this shift in design approach, final plans for North Osterman were not produced, and instead a single set of plans for South Osterman were produced.

South Osterman Update

Final design updates and refinements for South Osterman focused largely on refining the existing design and the addition of pertinent construction details to the plans. Updates to the plans were primarily driven by internal review and comments received from SCPW. A brief summary of changes made during the final design phase are summarized below.

- Refinements to the traffic control plan were made based on feedback from SCPW.
- Minor changes to the TESC and site preparation approach were implemented based on internal review and comments received.
- Section details for the proposed channel and finished road surface were refined and additional sections were added to clarify design intent.
- Slight modifications to ELJ details were made based on a review of structure stability.
- Culvert and wingwall details were refined based on internal review.
- Changes to the guardrail layout were made based on internal review.

Construction specifications for the project were drafted and include special provisions as appropriate to describe the nature of all work not covered in the standard WSDOT specifications. A full set of the final plans are included in Appendix A.

PERMITTING AND STAKEHOLDER CONSULTATION

NSD and SCPW reached out to the federal regulatory agencies in early 2021 to initiate discussion of the extraordinary site conditions and the consequently unique elements of the preliminary design. These discussions were initiated to ensure the design was aligned with the anticipated federal permitting pathway through Nationwide Permit 27 for *Aquatic Habitat Restoration, Enhancement, and Establishment Activities* from the U.S. Army Corps of Engineers (Corps), and Endangered Species Act Consultation through the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) programmatic consultation pathways.

The Corps administers Section 404 of the Clean Water Act, which regulates the discharge of dredged or fill materials into waters of the U.S., including most wetlands. Consultation with USFWS and NMFS regarding potential impacts to ESA listed species is one of the required components of the Corps' authorization process.

Initial indications from consultation with the Corps indicated that NWP 27 may be the authorization pathway applicable to the proposed project's replacement of perched culverts and resulting fish barriers, as well as the installation of LBSPs to address slope discontinuity in both creeks. Project design sequencing of first avoiding, then minimizing and finally restoring, or mitigating if necessary, for unavoidable project impacts is required under NWP 27. Temporary impacts required for construction of habitat restoration, if completely restored and resulting in no loss of area or function, can also typically be authorized under NWP 27. The Corps can authorize activities associated with restoration, enhancement, and establishment of waters and wetlands under NWP 27 "provided those activities result in net increases in aquatic resource functions and services." The aquatic benefits inherent to improved fish passage and increased channel complexity typically fit within NWP 27.

SCPW had also conducted a site visit and consulted with the area habitat biologist and engineers at Washington Department of Fish and Wildlife (WDFW) to facilitate potential alignment with the streamlined Hydraulic Project Approval (HPA) pathway for restoration actions. Similarly, SCPW has also reached out to the Upper Skagit Tribe

and the Skagit River System Cooperative to solicit review and input on the preliminary design as Tribes are co-managers of salmonid fisheries in Washington State.

Projects in or near state waters, and particularly those that will "use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state" (RCW 77.55.011(11)) require a HPA WDFW. This permit would be required for the proposed stream channel restoration work. WDFW uses an online Aquatic Protection Permitting System (APPS) as the mechanism for permit application and offers review and technical assistance through the local area habitat biologist. WDFW has established a fish habitat enhancement HPA exemption process which can streamline review by the local government of projects which remove a human-made or caused fish passage barrier. If approved by WDFW, the SEPA process and critical areas review may be waived by the local jurisdiction. Early coordination with the WDFW area habitat biologist is required to determine if the project may meet one or more of the categories of actions and have the required approvals to apply for the exemption process.

Specific contacts included the following, along with a summary of their general input:

- Randel Perry, US Army Corps of Engineers, Regulatory Branch
  - Supportive of the project and generally feels it should fit into a NWP 27 process provided ESA, Cultural Resources, and Tribal consultation are completed appropriately.
- Ryan McReynolds and Andrew Lade, USFWS
  - Generally supportive of the project and understanding of extraordinary existing conditions; consulting with geomorphologists within USFWS to gage design and determine if project aligns with the upcoming updated USFWS programmatic consultation pathway.
- David Price, NMFS
  - Supportive of the project and indicated project should utilize FPRP III programmatic documentation for ESA consultation under the programmatic pathway for restoration projects.
- Wayne Watne, Bob Warinner and Kevin Lautz, WDFW
  - Expressed concerns regarding where and why design was unable to utilize stream simulation methodologies; expressed concerns regarding migration of Sauk River into downstream end of project.
  - Concerns have informed discussion of larger project actions and migration of Sauk River herein.
  - Working with understanding that project will be viewed as an alternative design which has additional maintenance and monitoring requirements following construction.
- Rick Hartson, Upper Skagit Indian Tribe
  - Supportive of project; interested in how design anticipates scour at downstream end of the project and interested in potential for installation of wood upstream of the culverts.
  - Concerns have informed discussion of larger project actions and migration of Sauk River herein.
  - Bank structures upstream of the culverts to improve habitat complexity have been added to preliminary design; streambed mix has been modified to include small woody debris (slash material) as a component of the bed mix.
- Nora Kammer, Skagit River System Cooperative
  - Supportive of project; recognizes complexity of the project and proposed actions and good faith efforts to address complexity and ensure fish passage.

CONSTRUCTION METHODS AND COST ESTIMATE

Construction of this project will be complex and needs to be well-coordinated with several entities and landowners. Based on discussions with SCPW, construction of the project is assumed to take place under with no thru traffic (i.e., road fully closed). That being said, several private parcels will be directly affected and will require a coordinated approach for site access and staging of materials and equipment.

Construction of proposed project elements is anticipated to be completed with traditional, ground-based equipment including both wheeled and tracked machines. Some specialized equipment will be required for construction of project elements including a vibratory pile driver for construction of the LBSP and paving equipment for placement of hot mix asphalt. We anticipate that all project elements would be completed in a single construction season. A detour plan has been developed and is included in the plans which will route thru traffic on an alternate route, using SR530 for travel north and south along the Sauk River.

At least two buried utility lines wer exposed on the east side of Concrete-Sauk Valley Road when a portion of the road embankment was lost to the Sauk River. Verification of any other public and/or private utilities and coordination of appropriate temporary relocations will need to be coordinated well in advance of construction.

NSD prepared a construction cost estimate to inform project funding needs (Appendix B). The cost estimate is based on our professional judgment, the most recent cost data available, consultation with construction contractors, and recent experience with similar projects.

Construction costs were calculated in a single Microsoft Excel workbook, using consistent unit costs for each bid item. Construction quantities for each element were multiplied by their respective unit costs, and the resulting products totaled into a construction sub-total. Additional costs contingencies and incidentals were accounted for as a percentage of the construction sub-total. The construction sub-total was then increased by the percentages of the additional fees to estimate the total construction cost. Lastly, sales tax was calculated and included for all bid items; the application of sales tax to all bid items may not be appropriate depending on actual construction funding mechanisms but was included here as a conservative estimate.

LIMITATIONS

We have prepared this report for SCPW, their authorized agents, and regulatory agencies responsible for the Concrete-Sauk Valley Road Fish Passage Project. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices for fish passage and culvert design at the time this report was prepared. The conclusions, recommendations, and opinions presented in this report are based on our professional knowledge, judgment, and experience. No warranty or other conditions, expressed or implied, should be understood.

The construction cost estimate provided for this project was prepared using the most recent cost data available and was vetted based on our professional experience. Construction of fish passage projects is performed by relatively few contractors and costs for materials (e.g., culverts, streambed material, hardware, etc.) required for projects can vary widely depending on geographic location, material availability, timing of contracting, and overall status of the construction industry. The estimate we have provided should be viewed in this light.

We feel it is imperative that we reiterate the importance of fully implementing project elements in the main channel included as part of the broader bank stabilization project. The Sauk River is a dynamic river, frequently meandering across the wide valley through which it flows. The designs we have proposed were developed to address the extraordinary means in which the existing culverts came to be complete fish passage barriers and to attempt to strike a balance of costs and benefits to both aquatic species and humans. We have herein laid out the limitations of our design so they may be well understood.

In short, the design we have put forth are capable of restoring fish passage in South Osterman Creek and is designed to withstand anticipated future incision *provided the Sauk River does not migrate any further west*. Should the Sauk River migrate further west, renewed incision would begin; this renewed incision would at a minimum undermine project elements, causing them to settle at slopes steeper than designed. For these reasons we want to strongly encourage SCPW and project stakeholders to collaboratively work on a path forward for implementation of both this subset of project actions, as well as all other elements of the broader project as quickly as possible.

We appreciate this opportunity to be of service to SCPW for this project and look forward to continuing to work on this project as it moves toward implementation. Please contact us if you have any questions regarding this report, or if you need additional information.

Sincerely,

Natural Systems Design, TranTech, and GeoEngineers

CONTRIBUTING AUTHORS	
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Aaron Hartvigsen	GeoEngineers

HYDRAULIC PROJECT APPROVAL

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

Issued Date: October 19, 2023
Project End Date: October 01, 2028

Permit Number: 2023-4-590+01
FPA/Public Notice Number: N/A
Application ID: 30291

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Skagit County Public Works ATTENTION: David Walde 1800 Continental Pl Mount Vernon, WA 98273-5625	

Project Name: Concrete Sauk Valley Road Fish Passage - South Osterman Culvert

Project Description: The project will replace a failing 60-inch round concrete culvert with a new 21-foot three-sided concrete box culvert. Additional work will involve installation of large woody debris structures and plantings. The existing culvert was damaged when heavy snow melt runoff from an atmospheric river eroded the supporting soils around the 5-foot long barrel section of the culvert causing it to fall out of alignment and into the spill pool below.

The new precast concrete box culvert will be installed to replace the 60-inch round culvert. Additional work will be grading of the stream channel, installation of large woody debris and boulders, and planting of the exposed soils.

PROVISIONS

1. TIMING LIMITATION: You may begin the project on August 1, 2024 and you must complete the project by October 1, 2028; provided that all in-water work occurs between August 1 and October 1 of any year covered by this Hydraulic Project Approval (HPA).

2. APPROVED PLANS: You must accomplish the work per the following plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, except as modified by this Hydraulic Project Approval (HPA):

"20221117 CSVR Fish Passage Project JAPRA Figures.pdf," pages 1-10 of 10, received December 7, 2022;
"20221115-JARPA_CSVR Fish Passage_S Osterman_FINAL.pdf," pages 1-18 of 18, received December 7, 2022;
"South_Osternam_Final Sealed Plans Pt.1.pdf," pages 1-14 of 14, received October 18, 2023; and
"South_Osternam_Final Sealed Plans Pt.2.pdf," pages 1-14 of 14, received October 18, 2023;

You must have a copy of these plans and this HPA available on site during all phases of the project construction.

3. INVASIVE SPECIES CONTROL: Follow Method 1 for low risk locations (i.e. clean/drain/dry). Thoroughly remove visible dirt and debris from all equipment and gear (including drive mechanisms, wheels, tires, tracks, buckets, and undercarriage) before arriving and leaving the job site to prevent the transport and introduction of invasive species. For contaminated or high risk sites please refer to the Method 2 Decontamination protocol. Properly dispose of any water and chemicals used to clean gear and equipment. You can find this and additional information in the Washington Department of Fish and Wildlife's "Invasive Species Management Protocols", available online at https://wdfw.wa.gov/species-habitats/invasive/prevention.

4. NOTIFICATION: You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work. The notification must include the permittee's name, project

location, starting date, and the Hydraulic Project Approval permit number.

5. PHOTOGRAPHS: You, your agent, or contractor must take photographs of the job site before the work begins and after the work is completed. You must upload the photographs to the post-permit requirement page in the Aquatic Protection Permitting System (APPS) or mail them to Washington Department of Fish and Wildlife at Post Office Box 43234, Olympia, Washington 98504-3234 within 30-days after the work is completed.

6. FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION: If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS, AND EQUIPMENT

7. Establish staging areas (used for equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

8. Use existing roadways or travel paths.

9. Design and locate new temporary access roads to prevent erosion and sediment delivery to waters of the state.

10. Clearly mark boundaries to establish the limit of work associated with site access and construction.

11. Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.

12. Retain all natural habitat features on the bed or banks including large woody material and boulders. You may move these natural habitat features during construction but you must place them near the preproject location before leaving the job site.

13. Confine the use of equipment to the specific access and work corridor shown in the approved plans.

14. Limit the use of equipment waterward of the ordinary high water line to that necessary to gain position for the work.

15. Remove soil or debris from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to operating the equipment waterward of the ordinary high water line.

16. If wet or muddy conditions exist, in or near a riparian zone or wetland area, use equipment that reduces ground pressure.

17. Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.

18. Use environmentally acceptable lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols in equipment operated in or near the water.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

19. Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).

20. Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.

21. All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.

22. Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.

23. Stop all hydraulic project activities except those needed to control erosion and siltation, if flow conditions arise that

will result in erosion or siltation of waters of the state.

24. Prevent project contaminants, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.

25. Deposit waste material from the project, such as construction debris, silt, excess dirt, or overburden, in an upland area above the limits of anticipated floodwater unless the material is approved by the Washington Department of Fish and Wildlife for reuse in the project.

26. Deposit all trash from the project at an appropriate upland disposal location.

CONSTRUCTION MATERIALS

27. Store all construction and deconstruction material in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

28. Do not stockpile construction material waterward of the ordinary high water line.

29. Use only clean, suitable material as fill material (no trash, debris, car bodies, tires, asphalt, concrete, etc.).

IN-WATER WORK AREA ISOLATION USING BLOCK NETS

30. If possible, isolate fish from the work area by using block nets.

31. Install block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.

32. Do not install block nets at sites with heavy vegetation, large cobble or boulders, undercut banks, or deep pools unless you can secure and maintain them.

33. Install block nets at an angle to the direction of flow (not perpendicular to the flow) to avoid entrapping fish in the nets.

34. After the first block net is secured at the upstream end, use a second block net to herd fish downstream and out of the project area.

35. Install a downstream block net if fish may reenter the work area from downstream.

36. To anchor block nets, place bags filled with clean round gravel along the bottom of the nets.

37. To keep fish out of the job site, leave block nets in place until a temporary bypass is established, or until the work is complete and conditions are suitable for fish.

38. Check block nets at least three times a day for entangled fish and accumulated debris.

IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS

39. Install a cofferdam or similar device at the upstream and downstream end of the bypass to prevent backwater from entering the work area.

40. Maintain water quality when installing and removing the cofferdam, dike or similar structure.

41. Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.

42. Route construction water (wastewater) from the project to an upland area above the limits of anticipated floodwater. Remove fine sediment and other contaminants before discharging the construction water to waters of the state.

43. Sequence the work to minimize the duration of dewatering.

44. Isolate fish from the work area by using either a total or partial bypass to reroute the stream through a temporary channel or pipe.

45. Provide fish passage during times of the year when fish are expected to migrate.

46. Use the least-impacting feasible method to temporarily bypass water from the work area. Consider the physical characteristics of the site and the anticipated volume of water flowing through the work area.

47. Design the temporary bypass to minimize the length of the dewatered stream channel.

48. During all phases of bypass installation and decommissioning, maintain flows downstream of the project site to ensure survival of all downstream fish.

49. Return diverted water to the channel immediately downstream of the work area. Dissipate flow energy from the diversion to prevent scour or erosion of the channel and bank.

50. If the diversion inlet is a gravity diversion that provides fish passage, place the diversion outlet where it facilitates gradual and safe reentry of fish into the stream channel.

51. If the bypass is a pumped diversion, once started it must run continuously until it is no longer necessary to bypass flows. This requires back-up pumps on-site and twenty-four-hour monitoring for overnight operation.

52. If the diversion inlet is a pump diversion in a fish-bearing stream, the pump intake structure must have a fish screen installed, operated, and maintained in accordance with RCW 77.57.010 and 77.57.070. Screen the pump intake with one of the following:
a) Perforated plate: 0.094 inch (maximum opening diameter);
b) Profile bar: 0.069 inch (maximum width opening); or
c) Woven wire: 0.087 inch (maximum opening in the narrow direction).
The minimum open area for all types of fish screens is twenty-seven percent. The screened intake facility must have enough surface area to ensure that the velocity through the screen is less than 0.4 feet per second. Maintain fish screens to prevent injury or entrapment of fish.

53. The fish screen must remain in place whenever water is withdrawn from the stream through the pump intake.

54. Remove fish screens on dewatering pumps in the isolated work area only after all fish are safe and excluded from the work area.

55. Isolate pump hose intakes with block nets so that fish cannot get near the intake.

CULVERT

56. Install and maintain the culvert to ensure unimpeded fish passage.

57. Establish the culvert invert elevation with reference point(s) or benchmark(s) created before to starting work on this project. Clearly mark and preserve the reference point(s) for post-project compliance. Before backfilling, confirm the invert elevation, as stated on the plans, relative to the reference points with at least a construction-grade leveling device (such as an optical auto-level or laser level).

58. The authorized culvert is a split box culvert design.

59. The length of the culvert must not exceed 44 feet.

60. The width of the channel-bed inside a stream simulation culvert at the elevation of the stream bed must be equal to or greater than 21 feet which is 1.2 times the average channel bed width plus two feet.

61. Set the stream simulation culvert at the same gradient as the prevailing stream gradient of 5% percent.

62. Countersink the stream simulation culvert a minimum of thirty percent and a maximum of fifty percent of the culvert rise, but not less than two feet. This criterion applies through the full length of the culvert.

63. Size streambed material to mimic the stream’s natural gradation as found in nearby reference channel reaches. Place a minimum of 48 inches deep of clean, rounded and well-graded (includes all size classes) material. Angular rock is not permitted within the channel or culvert.

64. The streambed must include a sinuous low-flow channel expected under common conditions in the reach and a high-flow bench on both sides of the culvert.

65. Minimize damage to the bed and banks when placing the culvert.

66. Approach material must be structurally stable and composed of material that if eroded into the water will not harm fish life.

67. Install the culvert in the dry or in isolation from the stream flow by using a bypass channel or culvert, or by pumping the stream flow around the work area.

68. The owner(s) must maintain the culvert to ensure it provides continued, unimpeded fish passage. If the culvert becomes a hindrance to fish passage, the owner must obtain an Hydraulic Project Approval and provide prompt repair.

DEMOBILIZATION AND CLEANUP

69. Do not relocate removed or replaced structures within waters of the state. Remove and dispose of these structures in an upland area above the limits of anticipated floodwater.

70. Before the end of the in-water work period specified in the “timing limitations” provision, abandon temporary access routes in wet or flood-prone areas.

71. Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.

72. Completely remove any temporary fill before the end of the in-water timing window if the fill material could erode and deliver sediment-laden water into waters of the state.

73. To prevent fish from stranding, backfill trenches, depressions, and holes in the bed that may entrain fish during high water or wave action.

74. To minimize sediment delivery to the stream or stream channel, do not return in-stream flows to the work area until all in-channel work is completed and the bed and banks are stabilized.

75. Stabilize the bed with clean material sized to match undisturbed sediments.

76. Seed areas disturbed by construction activities with a native seed mix suitable for the site that has at least one quick-establishing plant species.

77. Replace native riparian zone and aquatic vegetation, and wetland vascular plants (except noxious weeds) damaged or destroyed by construction using a proven methodology.

78. Replant the job site with the plant species composition and planting densities approved by the Washington Department of Fish and Wildlife.

79. Complete replanting of riparian vegetation during the first dormant season (late fall through late winter) after project completion per the approved plan. Maintain plantings for at least three years to ensure at least eighty percent of the plantings survive. Vegetation must become well established to adequately maintain slope stability and prevent erosion.

80. Install fencing or other structures to prevent livestock, wildlife, or unauthorized persons from accessing the replanted riparian and wetland sites until the plantings are well established.

81. Upon completion of the project, remove all materials or equipment from the site and dispose of all excess spoils and waste materials in an upland area above the limits of anticipated floodwater.

82. Remove temporary erosion and sediment control methods after job site is stabilized or within three months of project completion, whichever is sooner.

LOCATION #1:	Site Name: South Osterman Fish Passage , , WA		
WORK START:	October 19, 2023	WORK END:	October 1, 2028

HYDRAULIC PROJECT APPROVAL

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

Issued Date: October 19, 2023
Project End Date: October 01, 2028

Permit Number: 2023-4-590+01
FPA/Public Notice Number: N/A
Application ID: 30291

WRIA		Waterbody:			Tributary to:	
04 - Skagit Upper		Other			Other	
1/4 SEC:	Section:	Township:	Range:	Latitude:	Longitude:	County:
	14	34 N	09 E	48.440614	-121.600304	Skagit
Location #1 Driving Directions						
From Sedro Woolley travel approximately 22 miles east on State Route 20. Turn right (south) onto Concrete Sauk Valley Road and travel approximately 13 miles to the site adjacent to 52839 Concrete Sauk Valley Road.						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.

Issued Date: October 19, 2023
Project End Date: October 01, 2028

Permit Number: 2023-4-590+01
FPA/Public Notice Number: N/A
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MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at http://wdfw.wa.gov/licensing/hpa/. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at http://wdfw.wa.gov/licensing/hpa/. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.

HYDRAULIC PROJECT APPROVAL

Issued Date: October 19, 2023
Project End Date: October 01, 2028

Permit Number: 2023-4-590+01
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A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist	elizabeth.tate@dfw.wa.gov	Elizabeth Tate	for Director
Elizabeth Tate	360-826-2665		WDFW

SKAGIT COUNTY PLANNING AND DEVELOPMENT SERVICES
MITIGATED DETERMINATION OF NONSIGNIFICANCE (MDNS)
And NOTICE OF DECISION
For
Skagit County Public Works
File # **PL22-0561**

PROJECT DESCRIPTION: Notice is hereby given that on January 6, 2023, Skagit County Planning and Development Services approved the independent State Environmental Policy Act (SEPA) checklist review for the South Osterman Creek/Concrete Sauk Valley Road Fish Passage Project. The project proposal is to restore upstream fish passage at South Osterman Creek where it crosses Concrete-Sauk Valley Road while simultaneously enhancing instream habitat through arresting incision and erosion of the bed and banks downstream of the existing culvert. The project will regrade approximately 400 feet of channel adjacent to the South Osterman culvert restoring fish passage while increasing in-channel habitat and complexity, replace an existing undersized culvert with an appropriately sized concrete box culvert and adding guardrails at the crossing, reduce sediment loading and aquatic habitat degradation downstream of the culvert associated with sloughing of the ravine banks, provide resiliency against potential future incision and restore mixed coniferous and deciduous riparian vegetation within the riparian corridor of the creek. The project includes the excavation of approximately 3,456 cubic yards of material and the placement of approximately 2,899 cubic yards of material. The proposed project is located within the Rural Resource (RRc-NRL) and Secondary Forest (SF-NRL) Natural Resource Lands zoning/comprehensive plan designated areas as indicated in the Skagit County Comprehensive Plan and associated maps adopted July 5, 2016, and as thereafter amended.

PROPONENT: Skagit County Public Works, c/o David Walde on behalf of Grace Kane, 1800 Continental Place, Mount Vernon, WA 98273.

PROJECT LOCATION: The site is located at, and adjacent to, 52839 Concrete Sauk Valley Road, Concrete, within a portion of Section 14, Township 34N, Range 9E W.M., situated within Skagit County, Washington. (P30972 and P30970).

LEAD AGENCY: Skagit County Planning and Development Services.

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. This determination is subject to the mitigated measures as identified below and shall be deemed conditions of approval of the land use and/or permit pursuant to Skagit County Code 14.12. Such conditions are considered binding and may not be altered by subsequent decisions unless a threshold determination is re-issued.

1. Temporary erosion/sedimentation control measures, as approved by the Skagit County Planning and Development Services, shall be in place prior to the placement of any fill material. The applicant shall maintain all temporary erosion/sedimentation control measures in accordance with the Skagit County Stormwater Management Ordinance. Said measures shall remain in place until completion of the project.
2. The applicant shall comply with Northwest Clean Air Agency requirements.
3. The applicant shall comply with the provisions of Chapter 14.32 of the Skagit County Code, the Skagit County Stormwater Management Ordinance, as it relates to increased runoff resulting from additional impervious surfaces.
4. The applicant shall comply with Fire Code Standards.
5. The applicant shall comply with all relevant provisions of 14.24 of the Skagit County Code (Skagit County Critical Areas Ordinance).
6. This project may be subject to one of Ecology's National Pollutant Discharge Elimination Systems

(NPDES) permits. A Construction Stormwater General or Industrial Permit may be required by the Department of Ecology (WSDOE) for this project. Contact the WSDOE Bellingham Field Office at (360) 715- 5200.

7. The contractor shall prepare and follow a spill prevention and emergency cleanup plan.

8. The project can proceed following an Unanticipated Discoveries Protocol (UDP) training given by a professional archaeologist to any and all contractors working on this project. A copy of the UDP (Appendix 3 of the ERCI February 8, 2021 report) is to be kept on site at all times during all phases of project activities.

9. The contractor shall follow the Inadvertent Discovery Plan. A Professional Archaeologist familiar with the UDP shall be on-call for the duration of work for evaluations should any cultural resources be encountered during construction. Should any human remains, archaeological, historic or cultural materials be discovered during construction, work in the affected area shall cease immediately and the area shall be secured of adequate size to protect it from further disturbance until the State provides a notice to proceed. Within 24 hours of the discovery, or as soon thereafter as possible, the developer shall notify the Skagit County Sheriff's office, Skagit County Planning and Development Services, the Washington State Department of Archeology and Historic Preservation and affected tribes. The discovery of any human skeletal remains must be reported to law enforcement immediately. If following consultation with the above parties it is determined that further archaeological and cultural resource assessments are required, the project developer shall retain the services of a professional archaeologist to prepare such an assessment. Project work in the affected area shall only continue when in conformance with applicable state and federal laws.

The Lead Agency previously issued a comment period for this proposal under the Optional DNS process outlined under WAC 197-11-355.

You may appeal this threshold determination in accordance with Skagit County Code 14.06 and 16.12 and then by filing such with the Skagit County Planning and Development Services for service to the SEPA responsible official within fourteen (14) calendar days after the date of the threshold determination.

Appeals must be submitted no later than: **January 26, 2023**

RESPONSIBLE OFFICIAL: Director of Planning and Development Services
CONTACT PERSON: Brandon Black, Current Planning Manager
MAILING ADDRESS: 1800 Continental Place, Mount Vernon, WA 98273.
PHONE: (360) 416-1320

Date: 1-10-23 Signature

On behalf of Jack Moore
Planning and Development Services Assistant Director

cc: WDOE, Public Works, NW Clean Air Agency, Fire Marshal, WSDF&W, Skagit River Systems Coop, DAHP, Army Corps., Upper Skagit Indian Tribe, Samish Indian Nation, Sauk-Suiattle Tribal Council, DNR, Critical Areas and Stormwater review staff, Water Resources, Applicant

Please Publish: 1-12-23

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT
4735 EAST MARGINAL WAY SOUTH, BLDG 1202
SEATTLE, WA 98134-2388

Regulatory Branch June 24, 2024

Ms. Grace Kane
Skagit County Public Works
1800 Continental Place
Mount Vernon, Washington 98273

Reference: NWS 2023-92
Concrete Sauk Valley
Road Fish Passage
Project (South Osterman
Creek)

Dear Ms. Kane

We have reviewed your application to place fill in 0.17 acre of an acre of stream to install a fish passable culvert and rebuild a stream channel in South Osterman Creek near Concrete, Skagit County, Washington. Based on the information you provided to us, Nationwide Permit (NWP) 27, Aquatic Habitat Restoration, Establishment, and Enhancement Activities (Federal Register December 27, 2021, Vol. 86, No. 245), authorizes your proposal as depicted on the enclosed drawings dated May 17, 2023.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 27, Terms and Conditions* and the following special conditions:

a. In order to meet the requirements of the Endangered Species Act you may conduct the authorized activities from July 1 through October 1 in any year this permit is valid. You shall not conduct work authorized by this permit from October 2 through June 30 in any year this permit is valid.

b. This U.S. Army Corps of Engineers (Corps) permit does not authorize you to take a threatened or endangered species, in particular Puget Sound Chinook salmon and Puget Sound Steelhead. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or ESA Section 7 consultation Biological Opinion (BO) with non-discretionary "incidental take" provisions with which you must comply). The FEMA Endangered Species Programmatic (FESP) biological opinion (BO) prepared by the National Marine

Fisheries Service (NMFS) dated January 18, 2018, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with the specified "incidental take" in the BO (NMFS Reference Number WCR-2016- 6048). Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the BO. These terms and conditions are incorporated by reference in this permit. Failure to comply with the commitments made in this document constitutes non-compliance with the ESA and your Corps permit. The NMFS is the appropriate authority to determine compliance with the ESA.

c. You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the BE titled NWS 2023-92, dated June 2, 2023, in its entirety. The U.S. Fish and Wildlife Service (USFWS) provided the enclosed Letter of Concurrence (LOC) with a finding of "may affect, not likely to adversely affect" based on this document on June 12, 2024 (USFWS Reference Number FWS/R1/2024-0021464). The agency will be informed of this permit issuance. Failure to comply with the commitments made in this consultation constitutes non-compliance with the ESA and your U.S. Army Corps of Engineers permit. The USFWS is the appropriate authority to determine compliance with ESA.

The Federal Emergency Management Agency completed National Historic Preservation Act, Section 7 Endangered Species Act (ESA) consultation and Magnuson Stevens Act, Essential Fish Habitat (EFH) consultation for the proposed activity [National Marine Fisheries Service reference [WCR-2016- 6048], U.S. Fish and Wildlife Service reference [FWS/R1/2024-0021464] (collectively called the Services)]. For the purpose of this Department of the Army authorization, we have determined this project will comply with the requirements of these laws provided you comply with all of the permit conditions. We have determined the permit action is sufficiently addressed in their ESA and EFH consultation documents. By this letter we are advising you and the Services, in accordance with 50 CFR 402.07 and 50 CFR 600.920(b), that this agency has served as the lead Federal agency for the ESA and EFH consultation responsibilities for the activity described above.

Please note that National General Condition 21, *Discovery of Previously Unknown Remains and Artifacts*, found in the *Nationwide Permit Terms and Conditions* enclosure, details procedures that must be followed should an inadvertent discovery occur. You must ensure that you comply with this condition during the construction of your project.

The authorized work complies with the Washington State Department of Ecology's (Ecology) Water Quality Certification (WQC) requirements and Coastal Zone

Management (CZM) consistency determination decision for this NWP. No further coordination with Ecology for WQC and CZM is required.

You have not requested a jurisdictional determination for this proposed project. If you believe the U.S. Army Corps of Engineers does not have jurisdiction over all or portions of your project you may request a preliminary or approved jurisdictional determination (JD). If one is requested, please be aware that we may require the submittal of additional information to complete the JD and work authorized in this letter may not occur until the JD has been completed.

Our verification of this NWP authorization is valid until March 14, 2026, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work for the NWP authorization has not been completed by that date and you have commenced or are under contract to commence this activity before March 14, 2026, you will have until March 14, 2027, to complete the activity under the enclosed terms and conditions of this NWP. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. You must also obtain all local, State, and other Federal permits that apply to this project.

Upon completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit*. All compliance reports should be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch electronically at nws.compliance@usace.army.mil. Thank you for your cooperation during the permitting process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey. Referenced documents and information about our program are available on our website at www.nws.usace.army.mil, select “Regulatory Permit Information”. A copy of this letter with enclosures will be furnished to Ms. Jordan Widener at jordancw@widener-enviro.com. If you have any questions, please contact me at kristin.m.murray@usace.army.mil or (360) 979-3698.

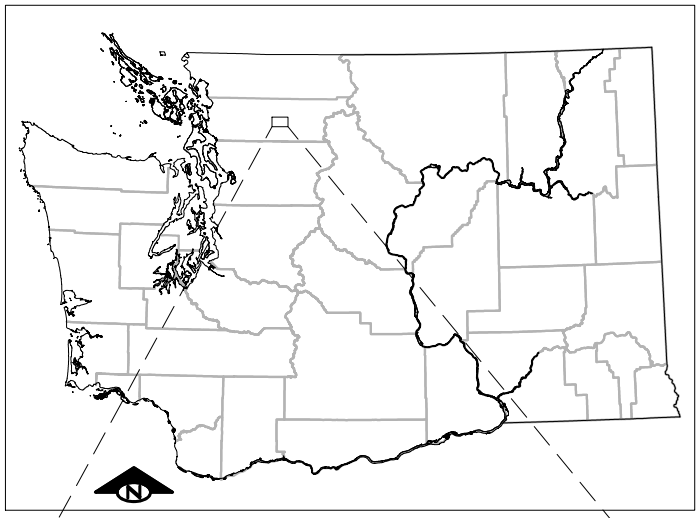
Sincerely,



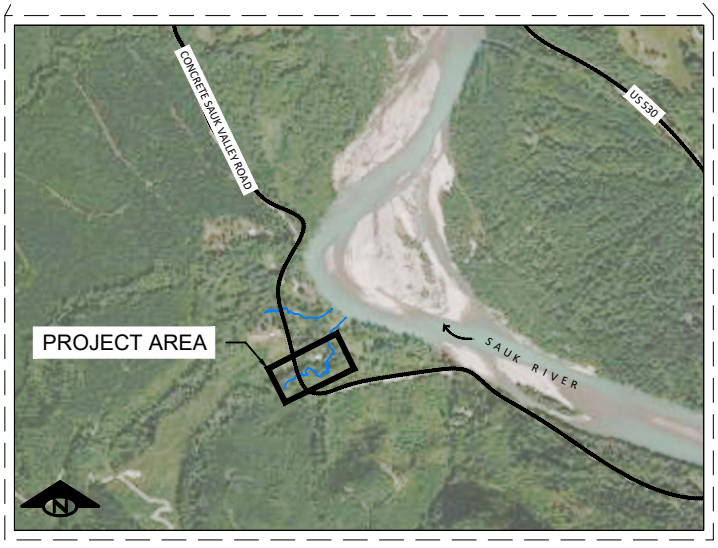
Kristin Murray, Project Manager
Regulatory Branch

Enclosures

cc:
Ecology (ecyrefedpermits@ecy.wa.gov)
USFWS (wfwoctap@fws.gov)
FEMA(femaprogrammatic.wcr@noaa.gov)



STATE OF WASHINGTON
VICINITY MAP



LOCATION MAP
SCALE: 1" = 2,000'

CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT

JARPA FIGURES

SKAGIT COUNTY PUBLIC WORKS

CONTACT INFORMATION

SKAGIT COUNTY PUBLIC WORKS

1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273
(360) 416-1437

NATURAL SYSTEMS DESIGN, INC

1900 N NORTHLAKE WAY, SUITE 211
SEATTLE, WA 98103
(206) 834-0175

REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

ADJACENT PROPERTY OWNERS:

MANNING, LORI D: P115040
THE SAUK LLC: P30971
BUTLER, CHRISTINA E.: P30894
CITY OF SEATTLE REAL ESTATE DIVISION: P30893

PROPOSED PROJECT: CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CULVERT

IN: SOUTH OSTERMAN CREEK
NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

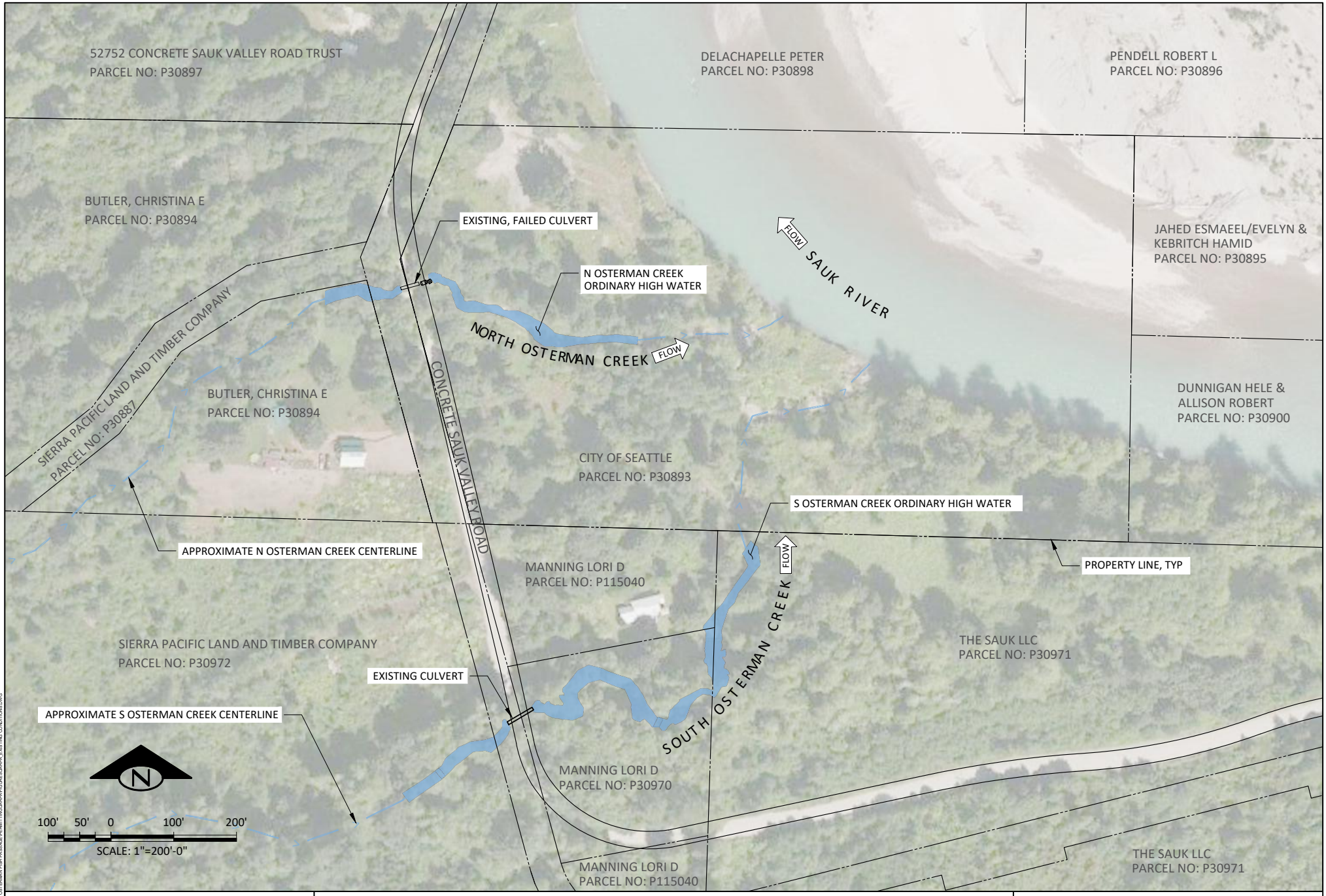
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VERTICAL DATUM: NAVD 83/98

COVER

DATE: May 17, 2023

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REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

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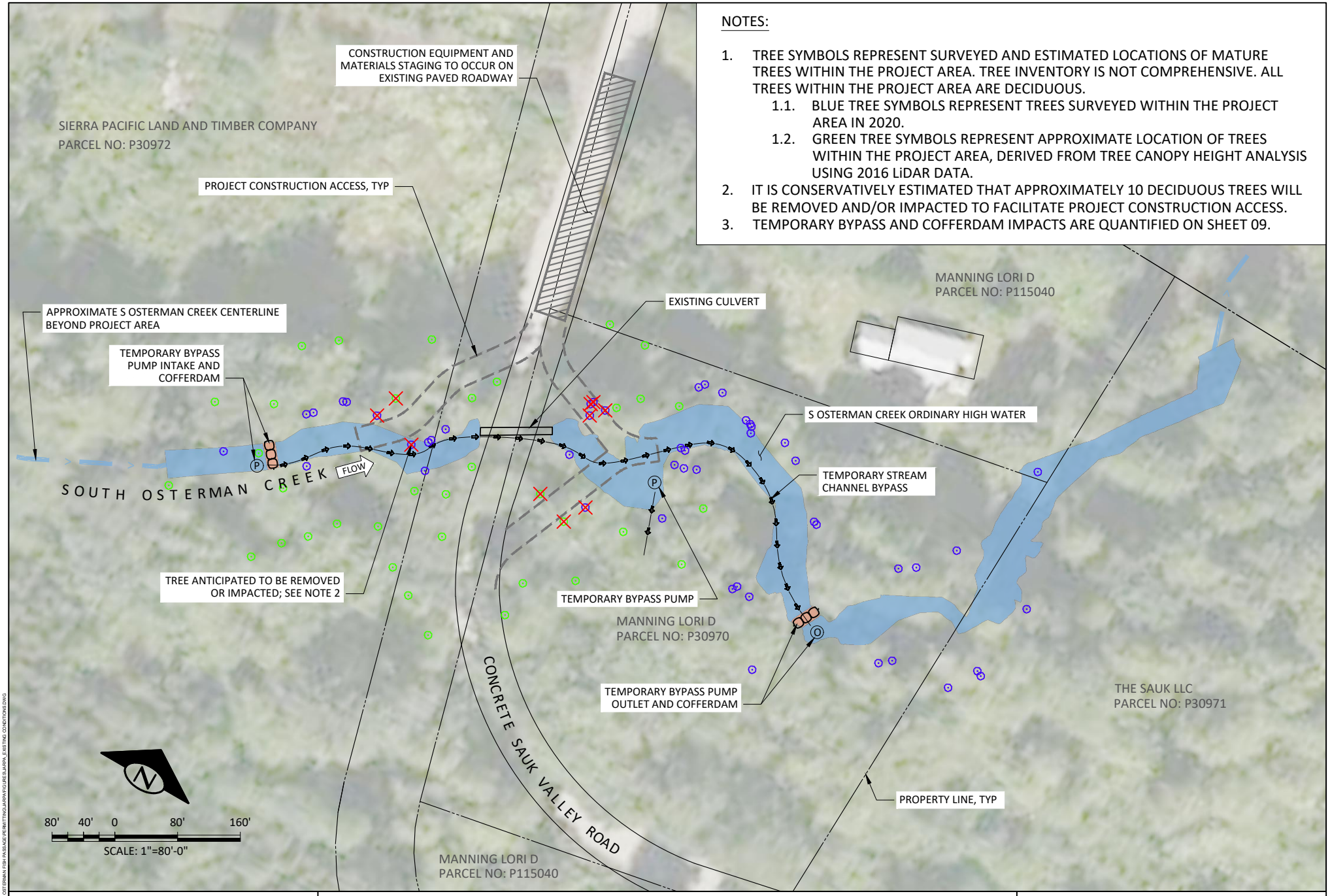
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DATE: May 17, 2023

SHEET 02 OF 10

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CITY OF SEATTLE REAL ESTATE DIVISION: P30893

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IN: SOUTH OSTERMAN CREEK
NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

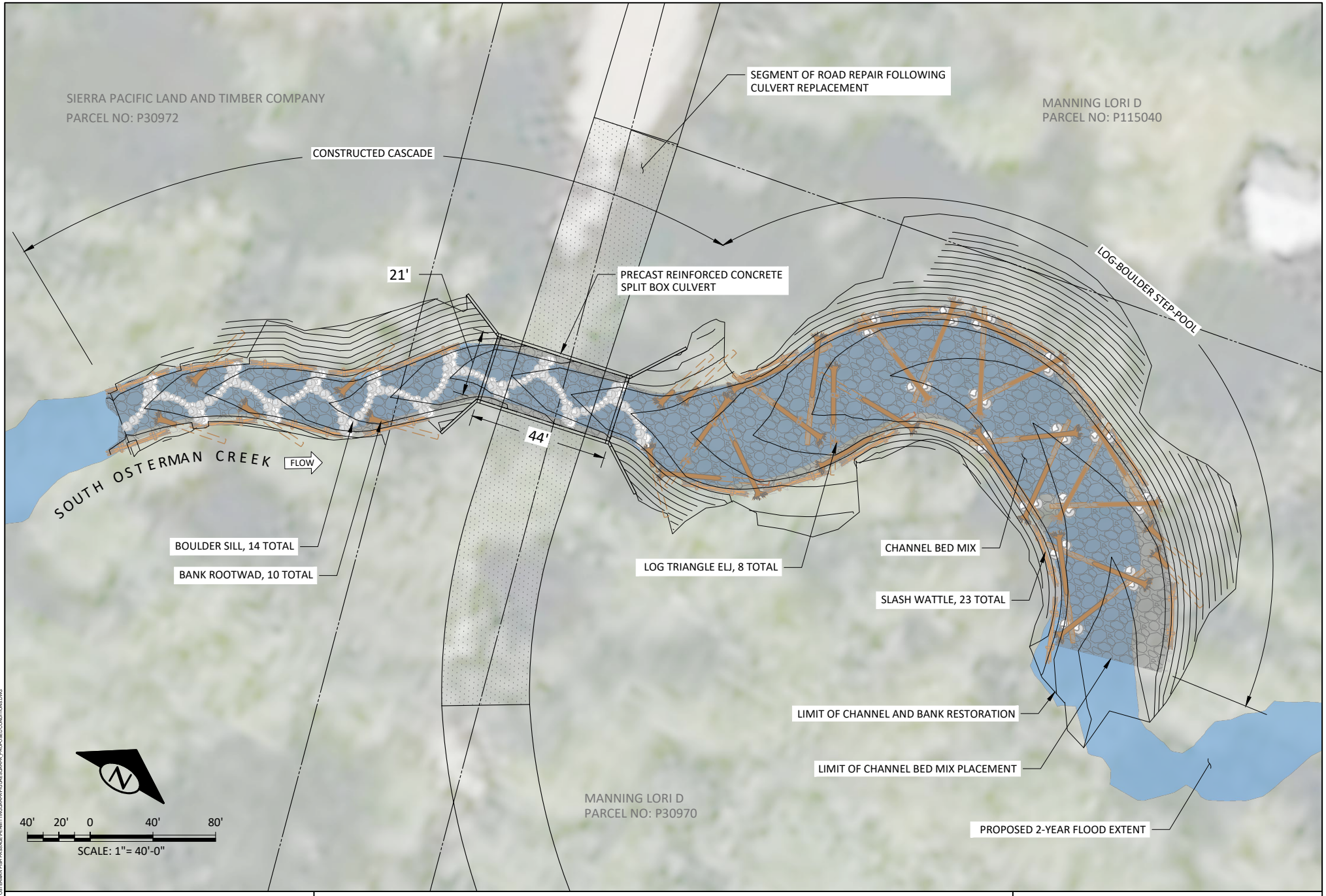
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LONGITUDE: -121.600860

HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 83/98

EXISTING CONDITIONS & CONSTRUCTION ACCESS

DATE: May 17, 2023

SHEET 03 OF 10



REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

ADJACENT PROPERTY OWNERS:

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NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

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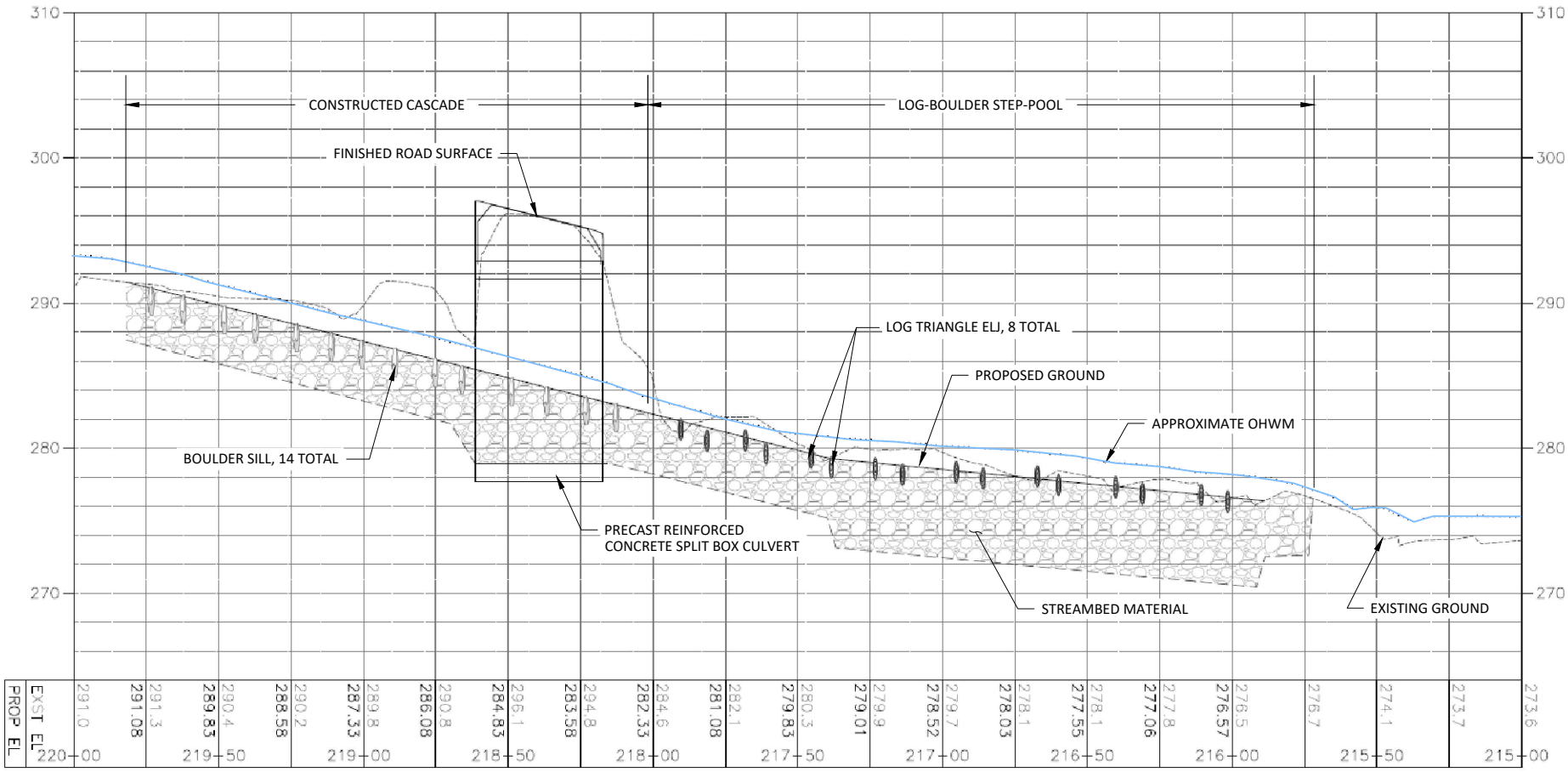
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PROPOSED CONDITIONS - SOUTH OSTERMAN

DATE: May 17, 2023

SHEET 04 OF 10

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PROPOSED CHANNEL PROFILE VIEW

NOT TO SCALE

REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

ADJACENT PROPERTY OWNERS:

MANNING, LORI D: P115040
THE SAUK LLC: P30971
BUTLER, CHRISTINA E.: P30894
CITY OF SEATTLE REAL ESTATE DIVISION: P30893

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IN: SOUTH OSTERMAN CREEK
NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

LATITUDE: 48.440538
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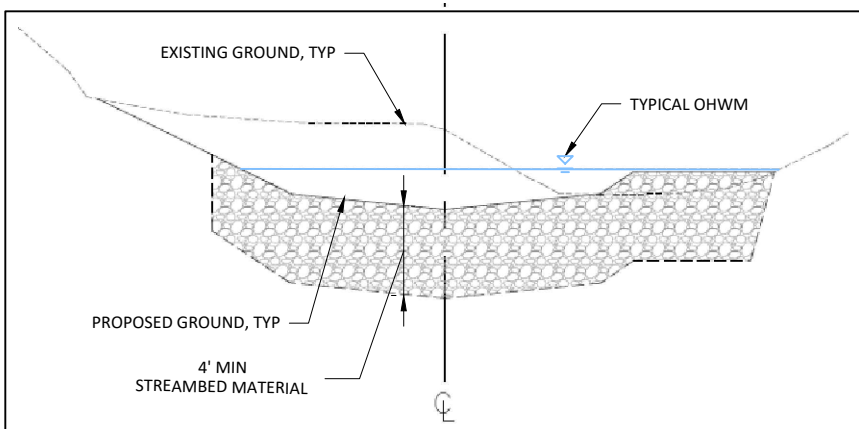
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CHANNEL PROFILE - SOUTH OSTERMAN

DATE: May 17, 2023

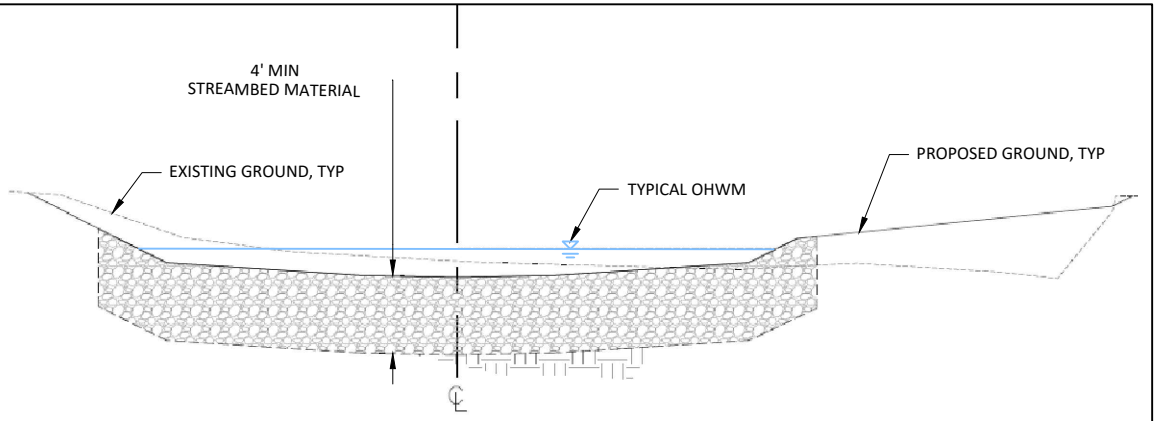
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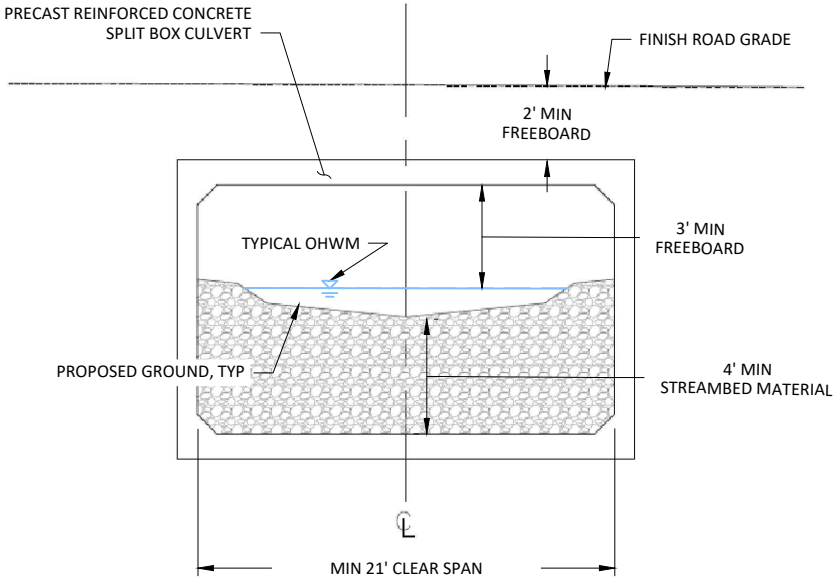
UPSTREAM CHANNEL SECTION VIEW

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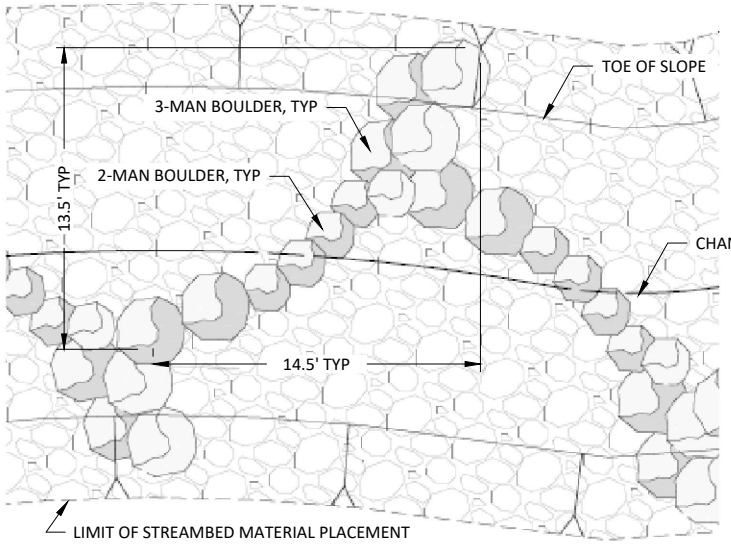
DOWNSTREAM CHANNEL SECTION VIEW

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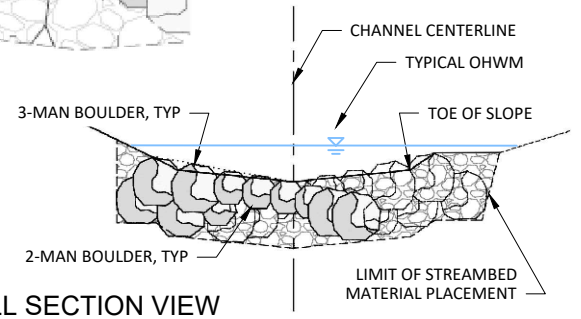
CULVERT CHANNEL SECTION VIEW

NOT TO SCALE



BOULDER SILL PLAN VIEW

NOT TO SCALE



BOULDER SILL SECTION VIEW

NOT TO SCALE

REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

ADJACENT PROPERTY OWNERS:

MANNING, LORI D: P115040
THE SAUK LLC: P30971
BUTLER, CHRISTINA E.: P30894
CITY OF SEATTLE REAL ESTATE DIVISION: P30893

PROPOSED PROJECT: CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CULVERT

IN: SOUTH OSTERMAN CREEK
NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

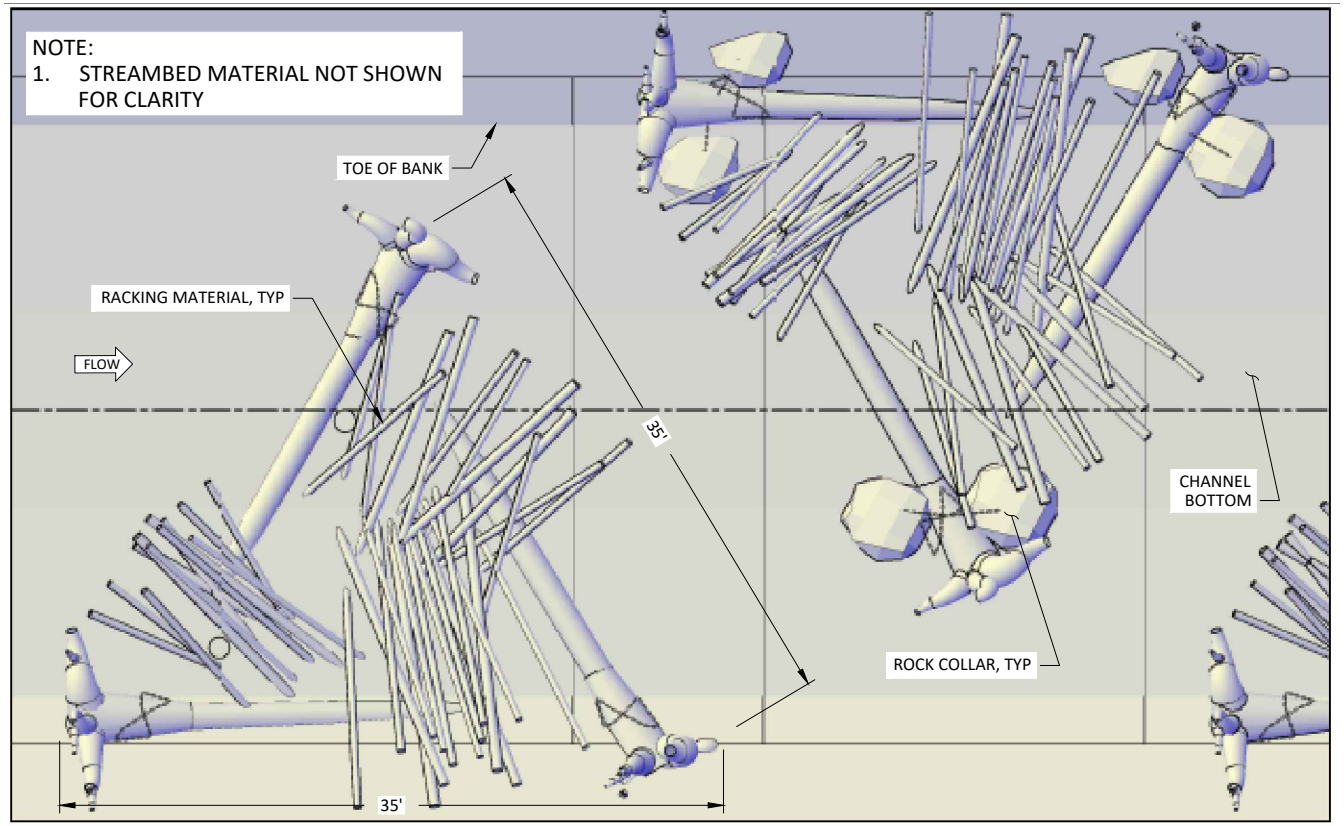
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VERTICAL DATUM: NAVD 83/98

CHANNEL RESTORATION & BOULDER SILL DETAILS

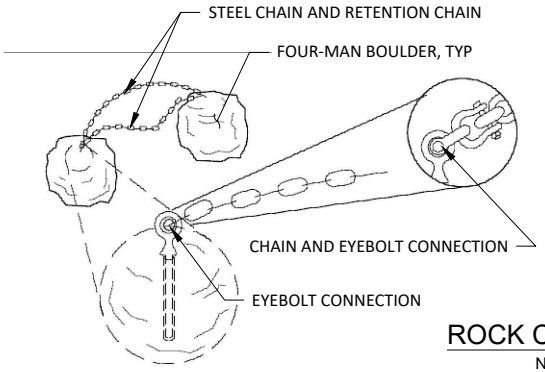
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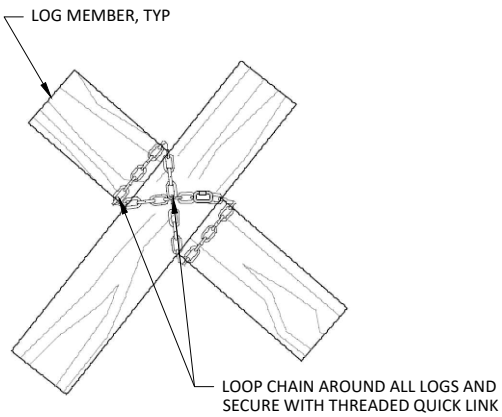
LOG TRIANGLE ELJ PLAN VIEW

NOT TO SCALE



ROCK COLLAR DETAIL

NOT TO SCALE

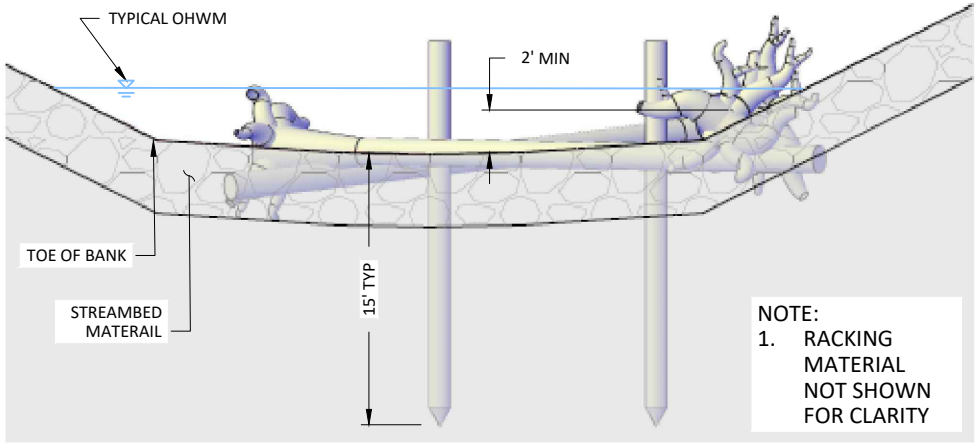


CHAIN LASHING DETAIL

NOT TO SCALE

LOG TRIANGLE ELJ SECTION VIEW

NOT TO SCALE



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NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

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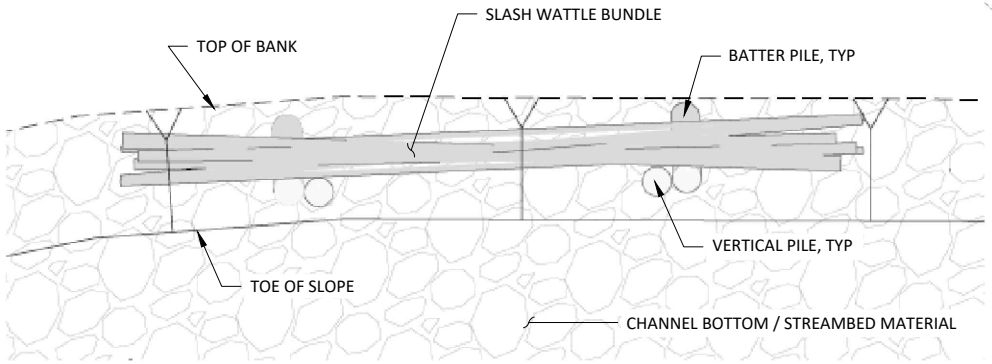
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VERTICAL DATUM: NAVD 83/98

LOG TRIANGLE DETAILS

DATE: May 17, 2023

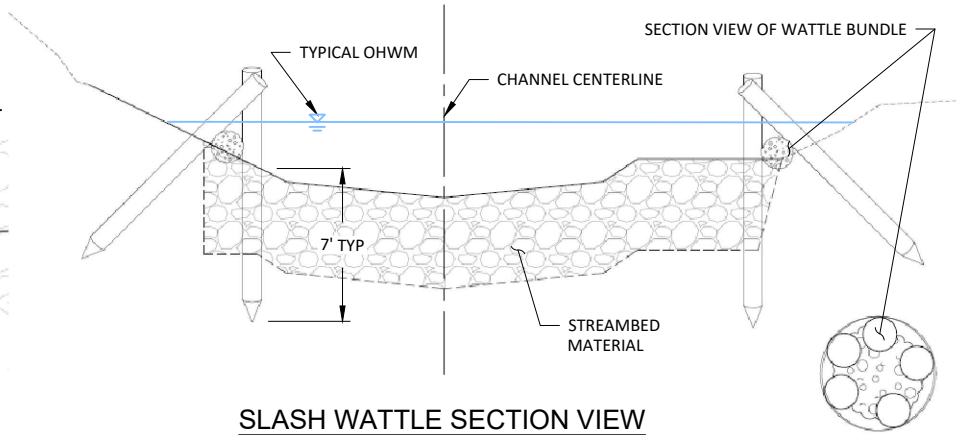
SHEET 07 OF 10

FILE: P:\PROJECTS\SKAGIT COUNTY\NORTH\SOUTH OSTERMAN FISH PASSAGE\PERMITTING\JARPA\FIGURES\JARPA_STRUCTURE DETAILS.DWG



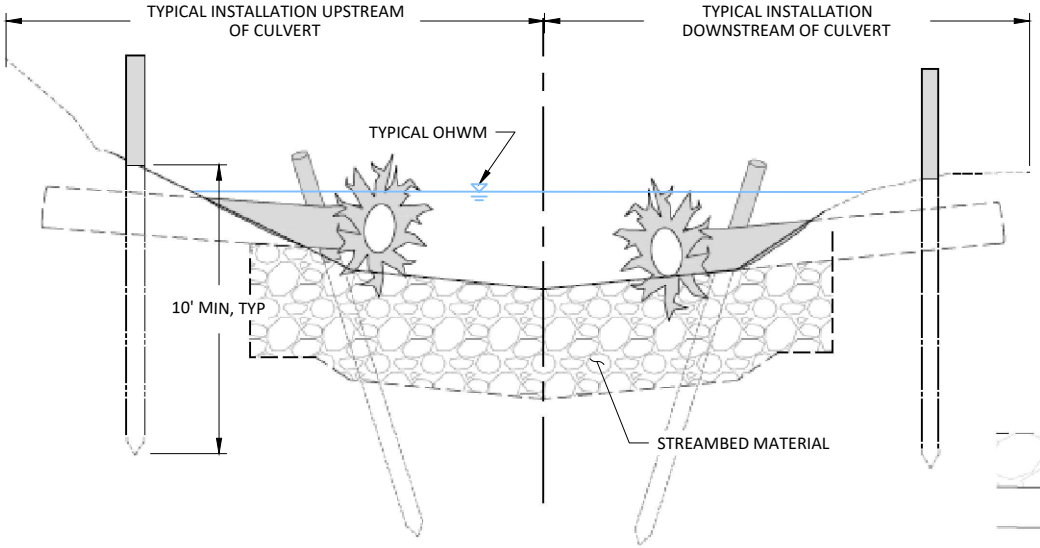
SLASH WATTLE PLAN VIEW

NOT TO SCALE



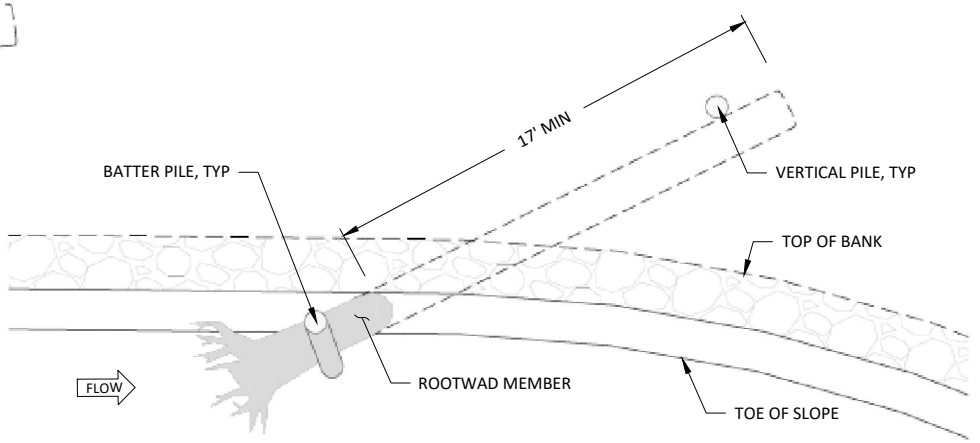
SLASH WATTLE SECTION VIEW

NOT TO SCALE



BANK ROOTWAD SECTION VIEW

NOT TO SCALE



BANK ROOTWAD PLAN VIEW

NOT TO SCALE

REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

ADJACENT PROPERTY OWNERS:

MANNING, LORI D: P115040
THE SAUK LLC: P30971
BUTLER, CHRISTINA E.: P30894
CITY OF SEATTLE REAL ESTATE DIVISION: P30893

PROPOSED PROJECT: CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CULVERT

IN: SOUTH OSTERMAN CREEK
NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

LATITUDE: 48.440538
LONGITUDE: -121.600860

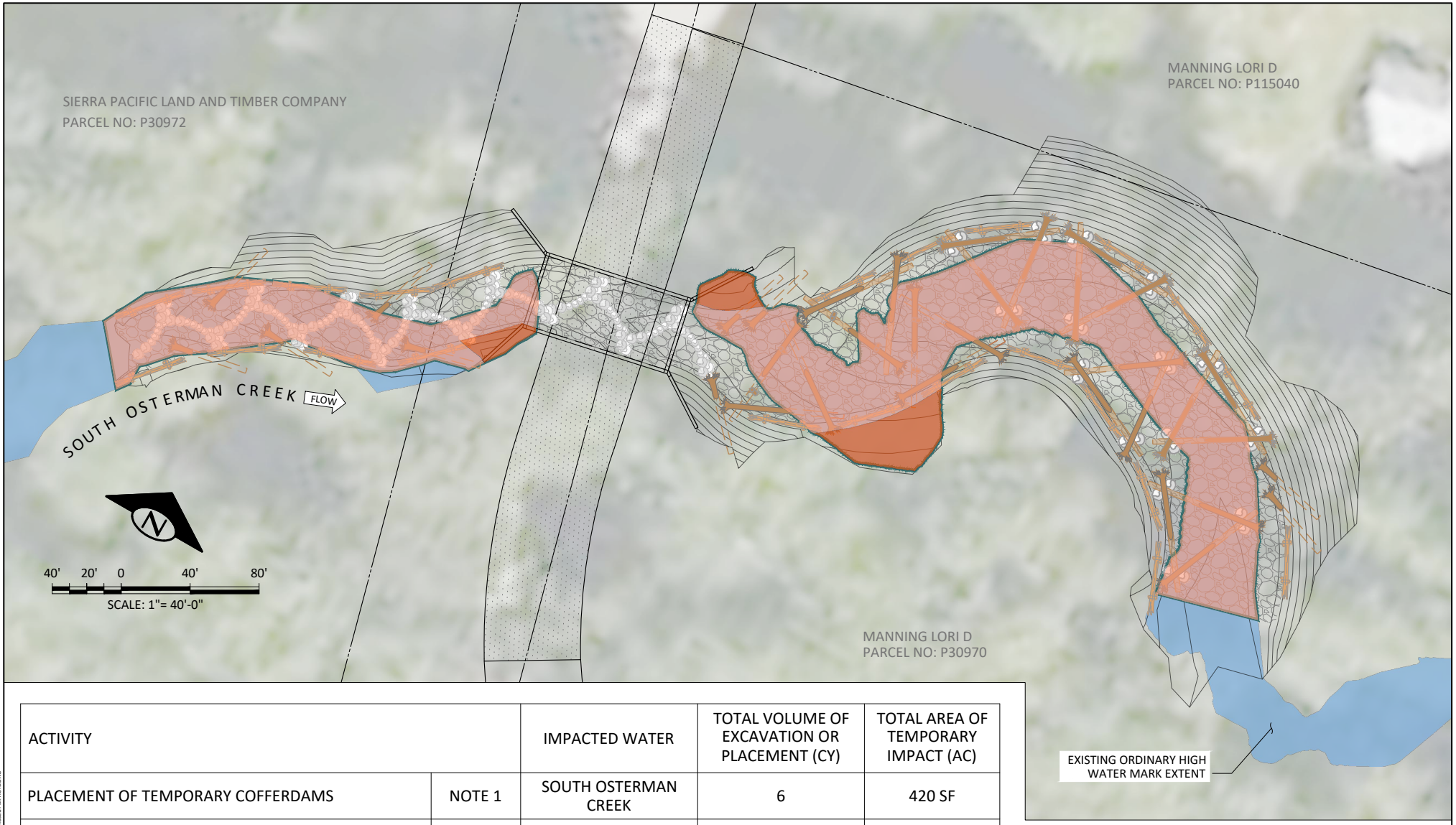
HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 83/98

BANK ROOTWAD AND SLASH WATTLE DETAILS

DATE: May 17, 2023

SHEET 08 OF 10

FILE: P:\PROJECTS\SKAGIT COUNTY\NORTH SOUTH OSTERMAN FISH PASSAGE\PERMITTING\JARPA\FIGURES\JARPA_STRUCTURE DETAILS.DWG



ACTIVITY		IMPACTED WATER	TOTAL VOLUME OF EXCAVATION OR PLACEMENT (CY)	TOTAL AREA OF TEMPORARY IMPACT (AC)
PLACEMENT OF TEMPORARY COFFERDAMS	NOTE 1	SOUTH OSTERMAN CREEK	6	420 SF
EXCAVATION FOR CULVERT REMOVAL AND CHANNEL RESTORATION		SOUTH OSTERMAN CREEK	1,376	0.17
PLACEMENT OF STREAMBED MATERIAL INCLUDING 96 STREAMBED BOULDERS		SOUTH OSTERMAN CREEK	1,681	0.17
PLACEMENT OF NATIVE MATIERAL		SOUTH OSTERMAN CREEK	66	0.02

NOTES:

1. TEMPORARY BYPASS AND COFFERDAM IMPACT LOCATIONS ARE SHOWN ON SHEET 03.
2. APPROXIMATE LOCATIONS OF ANTICIPATED DECIDUOUS TREE REMOVALS ARE SHOWN ON SHEET 03 (ESTIMATED TOTAL 10 TREES).

REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

ADJACENT PROPERTY OWNERS:

MANNING, LORI D: P115040
THE SAUK LLC: P30971
BUTLER, CHRISTINA E.: P30894
CITY OF SEATTLE REAL ESTATE DIVISION: P30893

PROPOSED PROJECT: CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CULVERT

IN: SOUTH OSTERMAN CREEK
NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

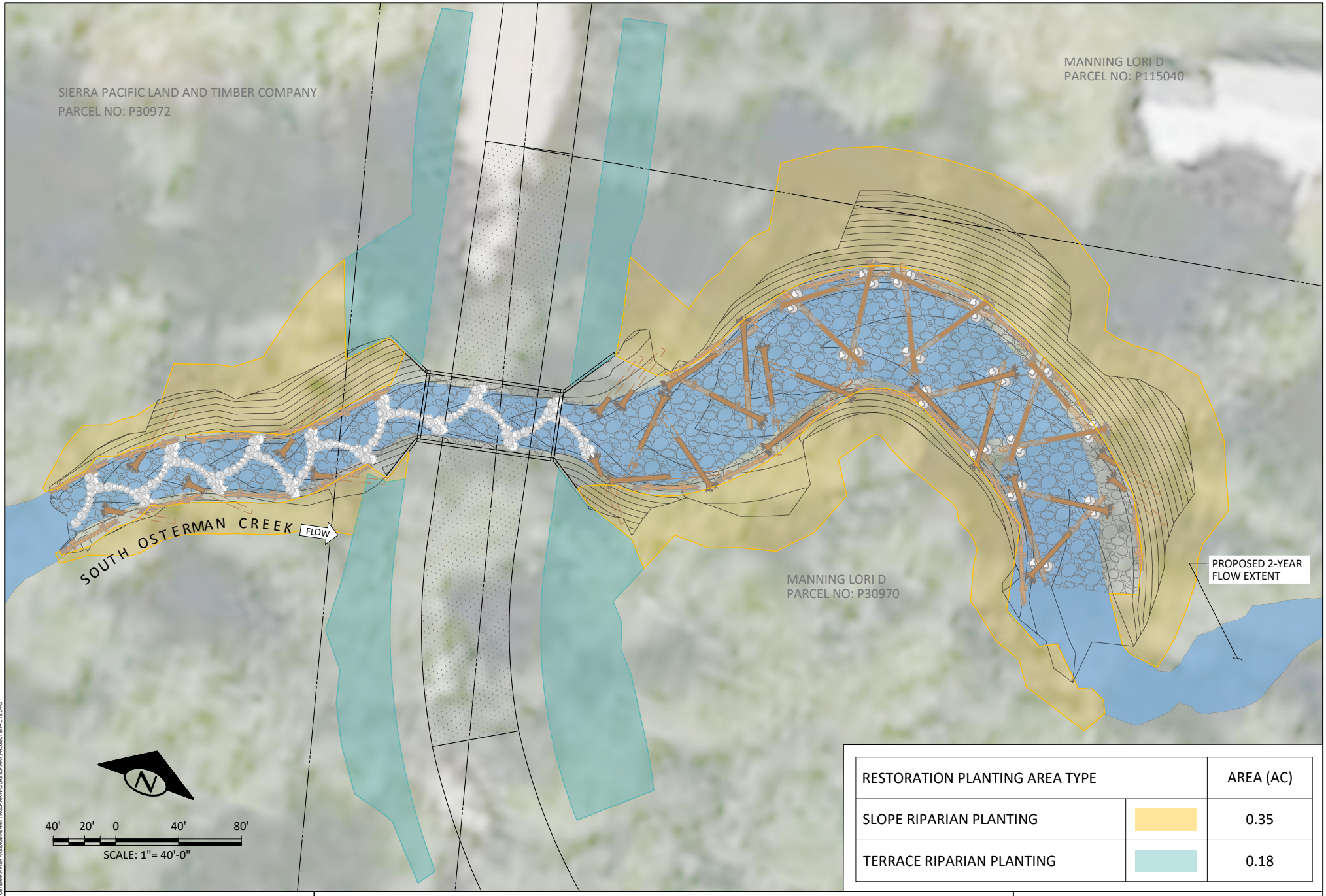
LATITUDE: 48.440538
LONGITUDE: -121.600860

HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 83/98

PROJECT IMPACTS - SOUTH OSTERMAN

DATE: May 17, 2023

FILE: P:\PROJECTS\SKAGIT COUNTY\NORTH\SOUTH OSTERMAN FISH PASSAGE\PERMITTING\JARPA\FIGURES\JARPA_PROJECT IMPACTS.DWG



RESTORATION PLANTING AREA TYPE		AREA (AC)
SLOPE RIPARIAN PLANTING		0.35
TERRACE RIPARIAN PLANTING		0.18

REFERENCE NUMBER: NWS-2023-92
APPLICANT: SKAGIT COUNTY PUBLIC WORKS

ADJACENT PROPERTY OWNERS:

MANNING, LORI D: P115040
THE SAUK LLC: P30971
BUTLER, CHRISTINA E.: P30894
CITY OF SEATTLE REAL ESTATE DIVISION: P30893

PROPOSED PROJECT: CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CULVERT

RESTORATION PLANTING - SOUTH OSTERMAN

IN: SOUTH OSTERMAN CREEK
NEAR/AT: CONCRETE, SKAGIT COUNTY, WA

LATITUDE: 48.440538
LONGITUDE: -121.600860

HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 83/98

DATE: May 17, 2023

SHEET 10 OF 10

FILE: P:\PROJECTS\SKAGIT COUNTY\NORTH\SOUTH OSTERMAN FISH PASSAGE\PERMITTING\ARPA\FIGURES\ARPA_PROJECT IMPACTS.DWG

US Army Corps of Engineers
Seattle District

NATIONWIDE PERMIT 27
Terms and Conditions

2021 NWPs - Final 41; Effective Date: February 25, 2022

A. Description of Authorized Activities
B. U.S. Army Corps of Engineers (Corps) National General Conditions for All Final 41 NWPs
C. Seattle District Regional General Conditions
D. Seattle District Regional Specific Conditions for this Nationwide Permit (NWP)
E. 401 Water Quality Certification (401 WQC) for this NWP
F. Coastal Zone Management Consistency Response for this NWP

In addition to any special condition that may be required on a case-by-case basis by the District Engineer, the following terms and conditions must be met, as applicable, for a Nationwide Permit (NWP) authorization to be valid in Washington State.

A. DESCRIPTION OF AUTHORIZED ACTIVITIES

27. Aquatic Habitat Restoration, Enhancement, and Establishment Activities. Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To be authorized by this NWP, the aquatic habitat restoration, enhancement, or establishment activity must be planned, designed, and implemented so that it results in aquatic habitat that resembles an ecological reference. An ecological reference may be based on the characteristics of one or more intact aquatic habitats or riparian areas of the same type that exist in the region. An ecological reference may be based on a conceptual model developed from regional ecological knowledge of the target aquatic habitat type or riparian area.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to the removal of accumulated sediments; releases of sediment from reservoirs to maintain sediment transport continuity to restore downstream habitats; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms are removed; the installation of current deflectors; the enhancement, rehabilitation, or re-establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to enhance, rehabilitate, or re-establish stream meanders; the removal of stream barriers, such as undersized culverts, fords, and grade control structures; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to restore or enhance wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; coral restoration or relocation activities; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., the conversion of a stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge of dredged or fill material occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity, the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting. For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) the binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 32), except for the following activities:

(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies;

(2) Activities conducted in accordance with the terms and conditions of a binding coral restoration or relocation agreement between the project proponent and the NMFS or any of its designated state cooperating agencies;

(3) Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(4) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement. (Authorities: Sections 10 and 404)

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

B. CORPS NATIONAL GENERAL CONDITIONS FOR ALL 2021 NWPs - FINAL 41

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be

used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant

of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will

verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal,

and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the

required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already

meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:
(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.
(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____
(Transferee)

_____
(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or

other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

C. SEATTLE DISTRICT REGIONAL GENERAL CONDITIONS: The following conditions apply to the 2021 NWPs - Final 41 NWPs for the Seattle District in Washington State, as applicable.

RGC 1, Project Drawings

Drawings must be submitted with pre-construction notification (PCN). Drawings must provide a clear understanding of the proposed project, and how waters of the United States will be affected. Drawings

must be originals and not reduced copies of large-scale plans. Engineering drawings are not required. Existing and proposed site conditions (manmade and landscape features) must be drawn to scale.

RGC 2, Aquatic Resources Requiring Special Protection
A PCN is required for activities resulting in a loss of waters of the United States in wetlands in dunal systems along the Washington coast, mature forested wetlands, bogs and peatlands, aspen-dominated wetlands, alkali wetlands, vernal pools, camas prairie wetlands, estuarine wetlands, and wetlands in coastal lagoons.

RGC 3, New Bank Stabilization in Tidal Waters of Puget Sound
Activities involving new bank stabilization in tidal waters in Water Resource Inventory Areas (WRIAs) 8, 9, 10, 11 and 12 (within the areas identified on Figures 1a through 1e) cannot be authorized by NWP.

RGC 4, Commencement Bay
No permanent losses of wetlands or mudflats within the Commencement Bay Study Area may be authorized by any NWP (see Figure 2).

RGC 5, Bank Stabilization
All projects including new or maintenance bank stabilization activities in waters of the United States where salmonid species are present or could be present, requires PCN to the U.S. Army Corps of Engineers (Corps) (see NWP general condition 32).
For new bank stabilization projects only, the following must be submitted to the Corps:

a. The cause of the erosion and the distance of any existing structures from the area(s) being stabilized.
b. The type and length of existing bank stabilization within 300 feet of the proposed project.
c. A description of current conditions and expected post-project conditions in the waterbody.
d. A statement describing how the project incorporates elements avoiding and minimizing adverse environmental effects to the aquatic environment and nearshore riparian area, including vegetation impacts in the waterbody.

In addition to a. through d., the results from any relevant geotechnical investigations can be submitted with the PCN if it describes current or expected conditions in the waterbody.

RGC 6, Crossings of Waters of the United States
Any project including installing, replacing, or modifying crossings of waters of the United States, such as culverts or bridges, requires submittal of a PCN to the U.S. Army Corps of Engineers (see NWP general condition 32).
If a culvert is proposed to cross waters of the U.S. where salmonid species are present or could be present, the project must apply the stream simulation design method from the Washington Department of Fish and Wildlife located in the *Water Crossing Design Guidelines* (2013), or a design method which provides passage at all life stages at all flows where the salmonid species would naturally seek passage. If the stream simulation design method is not applied for a culvert where salmonid species are present or could be present, the project proponent must provide a rationale in the PCN sufficient to establish one of the following:

a. The existence of extraordinary site conditions.
b. How the proposed design will provide equivalent or better fish passage and fisheries habitat benefits than the stream simulation design method.

Culverts installed under emergency authorization that do not meet the above design criteria will be required to meet the above design criteria to receive an after-the-fact nationwide permit verification.

RGC 7, Stream Loss
A PCN is required for all activities that result in the loss of any linear feet of streams.

RGC 8, Construction Boundaries
Permittees must clearly mark all construction area boundaries within waters of the United States before beginning work on projects that involve grading or placement of fill. Boundary markers and/or construction fencing must be maintained and clearly visible for the duration of construction. Permittees

should avoid and minimize removal of native vegetation (including submerged aquatic vegetation) to the maximum extent possible.

RGC 9, ESA Reporting to NMFS
For any nationwide permit that may affect threatened or endangered species;
Incidents where any individuals of fish species, marine mammals and/or sea turtles listed by National Oceanic and Atmospheric Administration Fisheries, National Marine Fisheries Service (NMFS) under the Endangered Species Act appear to be injured or killed as a result of discharges of dredged or fill material into waters of the U.S. or structures or work in navigable waters of the U.S. authorized by this Nationwide Permit verification shall be reported to NMFS, Office of Protected Resources at (301) 713-1401 and the Regulatory Office of the Seattle District of the U.S. Army Corps of Engineers at (206) 764-3495. The finder should leave the animal alone, make note of any circumstances likely causing the death or injury, note the location and number of individuals involved and, if possible, take photographs. Adult animals should not be disturbed unless circumstances arise where they are obviously injured or killed by discharge exposure or some unnatural cause. The finder may be asked to carry out instructions provided by the NMFS to collect specimens or take other measures to ensure that evidence intrinsic to the specimen is preserved.

D. SEATTLE DISTRICT REGIONAL SPECIFIC CONDITIONS FOR THIS NWP:

NWP 27 Specific Regional Conditions:
1. A pre-construction notification (PCN) must be submitted to the district engineer (see NWP general condition 32) for any proposed project located in a Department of the Army permit compensatory mitigation site, Comprehensive Environmental Response, Compensation and Liability Act (Superfund) site, Resource Conservation and Recovery Act hazardous waste clean-up site, Washington State Department of Ecology compensatory mitigation site, or Washington State Model Toxics Control Act clean-up site.

2. For projects subject to PCN, if there is a loss of waters of the U.S. the project proponent must explain in the PCN why the loss is necessary. The project proponent must also demonstrate how despite the loss of waters the overall project would result in a net increase in aquatic/ecological functions .

3. The PCN must contain a description of pre-project site conditions including presence of wetlands (including photographs) and aquatic/ecological functions the site provides within the watershed.

4. For projects that would result in a loss of waters of the U.S., the project proponent must include maintenance and monitoring plans with the PCN.

5. Restoration projects involving shellfish seeding must use shellfish native to the watershed.

E. 401 WATER QUALITY CERTIFICATION: Depending on the geographic region of the work authorized by this verification, the appropriate 401 certifying authority has made the following determinations:

Washington Department of Ecology (Ecology) (Projects in all areas except as described for the other certifying agencies listed below): General and Specific WQC Conditions

A. State General Conditions for all Nationwide Permits

In addition to all of the U.S. Army Corps of Engineers' (Corps) national and Seattle District'sregional permit conditions, the following state general Water Quality Certification (WQC) conditions **apply to all NWPs whether granted or granted with conditions** in Washington where Ecology is the certifying authority.

Due to the lack of site specific information on the discharge types, quantities, and specific locations, as well as the condition of receiving waters and the quantity of waters (including wetlands) that may be lost,

Ecology may need to review the project if one of the following stategeneral conditions is triggered.

This case-by-case review may be required, and additional information regarding the project and associated discharges may be needed, to verify that the proposed project would comply with state water quality requirements and if an individual WQC is required or if the project meets this programmatic WQC.

1. **In-water construction activities**. Ecology WQC review is required for projects or activities authorized under NWPs where the project proponent has indicated on the Joint Aquatic Resource Permit Application (JARPA) question 9e that the project or activity will not meet State water quality standards, or has provided information indicating that the project or activity will cause, or may be likely to cause or contributeto an exceedance of a State water quality standard (Chapter 173-201A WAC) or sediment management standard (Chapter 173-204 WAC).

Note: In-water activities include any activity within a jurisdictional wetland and/orwaters.

2. **Projects or Activities Discharging to Impaired Waters**. Ecology WQC review is required for projects or activities that will occur in a 303(d) listed segment of a waterbody or upstream of a listed segment and may result in further exceedances of the specific listedparameter to determine if the project meets this programmatic WQC or will require individual WQC.

To determine if your project or activity is in a 303(d) listed segment of a waterbody, visitEcology's Water Quality Assessment webpage for maps and search tools.

3. **Aquatic resources requiring special protection**. Certain aquatic resources are unique and difficult-to-replace components of the aquatic environment in Washington. Activities that would affect these resources must be avoided to the greatest extent practicable. Compensating for adverse impacts to high value aquatic resources is typically difficult, prohibitively expensive, and may not be possible in some landscapesettings.

Ecology WQC review is required for projects or activities in areas identified below to determine if the project meets this programmatic WQC or will require individual WQC.

a. Activities in or affecting the following aquatic resources:
    i. Wetlands with special characteristics (as defined in the Washington State Wetland Rating Systems for western and eastern Washington, Ecology Publications #14-06-029 and #14-06-030):
        - Estuarine wetlands.
        - Wetlands of High Conservation Value.
        - Bogs.
        - Old-growth forested wetlands and mature forested wetlands.
        - Wetlands in coastal lagoons.
        - Wetlands in dunal systems along the Washington coast.
        - Vernal pools.
        - Alkali wetlands.

    ii. Fens, aspen-dominated wetlands, camas prairie wetlands.

    iii. Category I wetlands.

    iv. Category II wetlands with a habitat score ≥ 8 points.

b. Activities in or resulting in a loss of eelgrass (Zostera marina) beds.

This state general condition does not apply to the following NWPs:

NWP 20 – Response Operations for Oil and Hazardous Substances
NWP 32 – Completed Enforcement Actions
NWP 48 – Commercial Shellfish Mariculture Activities

4. **Loss of More than 300 Linear Feet of Streambed.** For any project that results in the lossof more than 300 linear feet of streambed Ecology WQC review is required to determineif the project meets this programmatic WQC or will require individual WQC.

5. **Temporary Fills.** For any project or activity with temporary fill in wetlands or other waters for more than six months Ecology WQC review is required to determine if theproject meets this programmatic WQC or will require individual WQC.

6. **Mitigation.** Project proponents are required to show that they have followed the mitigation sequence and have first avoided and minimized impacts to aquatic resourceswherever practicable. For projects requiring Ecology WQC review or an individual WQC with unavoidable impacts to aquatics resources, a mitigation plan must be provided.

    a. Wetland mitigation plans submitted for Ecology review and approval shall be based on the most current guidance provided in Wetland Mitigation in Washington State, Parts 1 and 2 (available on Ecology's website) and shall, at aminimum, include the following:

        i. A description of the measures taken to avoid and minimize impacts to wetlands and other waters of the U.S.

        ii. The nature of the proposed impacts (i.e., acreage of wetlands and functions lost or degraded).

        iii. The rationale for the mitigation site that was selected.

        iv. The goals and objectives of the compensatory mitigation project.

        v. How the mitigation project will be accomplished, including construction sequencing, best management practices to protect water quality, proposed performance standards for measuring success and the proposed buffer widths.

        vi. How it will be maintained and monitored to assess progress toward goals and objectives. Monitoring will generally be required for a minimum of five years. For forested and scrub-shrub wetlands, 10 years of monitoring will often be necessary.

        vii. How the compensatory mitigation site will be legally protected for the long term.

Refer to Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Ecology Publication #06-06-011b) and Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology Publications #09-06-032 (Western Washington) and #10-06-007 (Eastern Washington)) for guidance on selecting suitable mitigation sites and developing mitigation plans.

Ecology encourages the use of alternative mitigation approaches, includingcredit/debit methodology, advance mitigation, and other programmatic approaches such as mitigation banks and in-lieu fee programs. If you are interested in proposing use of an alternative mitigation approach, consult with the

appropriate Ecology regional staff person. Information on alternative mitigation approaches is available on Ecology's website.

b. Mitigation for other aquatic resource impacts will be determined on a case-by-case basis.

7. **Stormwater Pollution Prevention**. All projects involving land disturbance or impervious surfaces must implement stormwater pollution prevention or control measures to avoiddischarge of pollutants in stormwater runoff to waters.

a. For land disturbances during construction, the applicant must obtain and implement permits (e.g., Construction Stormwater General Permit) where required and follow Ecology's current stormwater manual.

b. Following construction, prevention or treatment of on-going stormwater runofffrom impervious surfaces shall be provided.

Ecology's Stormwater Management and Design Manuals and stormwater permitinformation are available on Ecology's website.

8. **Application**. For projects or activities that will require Ecology WQC review, or anindividual WQC, project proponents must provide Ecology with a JARPA or the equivalent information, along with the documentation provided to the Corps, as described in national general condition 32, Pre-Construction Notification (PCN), including, where applicable:

a. A description of the project, including site plans, project purpose, direct and indirect adverse environmental effects the project discharge(s) would cause, best management practices (BMPs), and proposed means to monitor the discharge(s).

b. List of all federal, state or local agency authorizations required to be used for anypart of the proposed project or any related activity.

c. Drawings indicating the OHWM, delineation of special aquatic sites, and other waters of the state. Wetland delineations must be prepared in accordance with thecurrent method required by the Corps and shall include Ecology's Wetland Rating form. Wetland Rating forms are subject to review and verification by Ecology staff.

Guidance for determining the OHWM is available on Ecology's website.

d. A statement describing how the mitigation requirement will be satisfied. A conceptual or detailed mitigation or restoration plan may be submitted. See stategeneral condition 5.

e. Other applicable requirements of Corps NWP general condition 32, Corps regional conditions, or notification conditions of the applicable NWP.

Ecology **grants with conditions Water Quality Certification** (WQC) for this NWP provided that Ecology individual WQC review is not required per the state general conditions (see above) and the following conditions:

Ecology Section 401 Water Quality Certification – Granted with conditions.

1. Ecology WQC review is required if the project or activity is in a known contaminatedor cleanup site to determine if an individual WQC is required or the project meets the programmatic WQC for this NWP.

2. Ecology individual WQC is required for projects or activities authorized under thisNWP if:
    a. The project or activity directly impacts ½ acre or more of tidal waters; or
    b. The project or activity affects ½ acre or more of wetlands; or
    c. The project or activity is a mitigation bank or an advance mitigation site.

Environmental Protection Agency (EPA) (on Tribal Lands where Tribes Do Not Have Treatment in a Similar Manner as a State and Lands with Exclusive Federal Jurisdiction in Washington):

On behalf of the 28 tribes that do not have treatment in a similar manner as a state and for exclusive federal jurisdiction lands located within the state of Washington, EPA Region 10 has determined that CWA Section 401 WQC for the following proposed NWPs is granted with conditions. EPA Region 10 has determined that any discharge authorized under the following proposed NWPs will comply with water quality requirements, as defined at 40 C.F.R. § 121.1(n), subject to the following conditions pursuant to CWA Section 401(d).

General Conditions:

EPA General Condition 1 – Aquatic Resources of Special Concern

Activities resulting in a point source discharge in the following types of aquatic resources of special concern shall request an individual project-specific CWA Section 401 WQC: mature forested wetlands; bogs, fens and other peatlands; vernal pools; aspen-dominated wetlands; alkali wetlands; camas prairie wetlands; wetlands in dunal systems along the Oregon or Washington Coast; riffle-pool complexes of streams; marine or estuarine mud-flats; salt marshes; marine waters with native eelgrass or kelp beds; or marine nearshore forage fish habitat. To identify whether a project would occur in any of these aquatic resources of special concern, project proponents shall use existing and available information to identify the location and type of resources, including using the U.S. Fish and Wildlife Service's online digital National Wetland Inventory maps, identifying project location on topographical maps, and/or providing on-site determinations as required by the Corps. When a project requires a Pre-Construction Notification (PCN) to the Corps, project proponents shall work with the Corps to identify whether the project is in any of these specific aquatic resources of special concern.

EPA General Condition 2 – Soil Erosion and Sediment Controls

Turbidity shall not exceed background turbidity by more than 50 Nephelometric Turbidity Units (NTU) above background instantaneously or more than 25 NTU above background for more than ten consecutive days.[8] Projects or activities that are expected to exceed these levels require an individual project-specific CWA Section 401 WQC.

The turbidity standard shall be met at the following distances from the discharge:

Wetted Stream Width at Discharge Point	**Approximate Downstream Point to Sample to Determine Compliance**
Up to 30 feet	50 feet
>30 to 100 feet	100 feet
>100 feet to 200 feet	200 feet
>200 feet	300 feet
Lake, Pond, Reservoir	Lesser of 100 feet or maximum surface distance

For Marine Water	Point of Compliance for Temporary Area of Mixing
Estuaries or Marine Waters	Radius of 150 feet from the activity causing the turbidity exceedance

Measures to prevent and/or reduce turbidity shall be implemented and monitored prior to, during, and after construction. Turbidity monitoring shall be done at the point of compliance within 24 hours of a precipitation event of 0.25 inches or greater. During monitoring and maintenance, if turbidity limits are exceeded or if measures are identified as ineffective, then additional measures shall be taken to come into compliance and EPA shall be notified within 48 hours of the exceedance or measure failure.

EPA General Condition 3 - Compliance with Stormwater Pollution Prevention and the National Pollutant Discharge Elimination System Permit Provisions

For land disturbances during construction that 1) disturb one or more acres of land, or 2) will disturb less than one acre of land but are part of a common plan of development or sale that will ultimately disturb one or more acres of land, the permittee shall obtain and implement Construction Stormwater General Permit requirements,[9] including:

1. The permittee shall develop a Stormwater Pollution Prevention Plan (SWPPP)[10] and submit it to EPA Region 10 and appropriate Corps District; and
2. Following construction, prevention or treatment of ongoing stormwater runoff from impervious surfaces that includes soil infiltration shall be implemented.

EPA General Condition 4 – Projects or Activities Discharging to Impaired Waters

Projects or activities are not authorized under the NWPs if the project will involve point source discharges into an active channel (e.g., flowing or open waters) of a water of the U.S. listed as impaired under CWA Section 303(d) and/or if the waterbody has an approved Total Maximum Daily Load (TMDL) and the discharge may result in further exceedance of a specific parameter (e.g., total suspended solids, dissolved oxygen, temperature) for which the waterbody is listed or has an approved TMDL. The current lists of impaired waters of the U.S. under CWA Section 303(d) and waters of the U.S. for which a TMDL has been approved are available on EPA Region 10's web site at: https://www.epa.gov/tmdl/impaired-waters-and-tmdls-region-10.

EPA General Condition 5 – Notice to EPA

All project proponents shall provide notice to EPA Region 10 prior to commencing construction activities authorized by a NWP. This will provide EPA Region 10 with the opportunity to inspect the activity for the purposes of determining whether any discharge from the proposed project will violate this CWA Section 401 WQC. Where the Corps requires a PCN for an applicable NWP, the project proponent shall also provide the PCN to EPA Region 10. EPA Region 10 will provide written notification to the project proponent if the proposed project will violate the water quality certification of the NWP.

EPA General Condition 6 – Unsuitable Materials

The project proponent shall not use wood products treated with leachable chemical components (e.g., copper, arsenic, zinc, creosote, chromium, chloride, fluoride, pentachlorophenol), which result in a discharge to waters of the U.S., unless the wood products meet the following criteria:

1. Wood preservatives and their application shall be in compliance with EPA label requirements and criteria of approved EPA Registration Documents under the Federal Insecticide, Fungicide, and Rodenticide Act;
2. Use of chemically treated wood products shall follow the Western Wood Preservatives Institute (WWPI) guidelines and BMPs to minimize the preservative migrating from treated wood into the aquatic environment;
3. For new or replacement wood structures, the wood shall be sealed with non-toxic

products such as water-based silica or soy-based water repellants or sealers to prevent or limit leaching. Acceptable alternatives to chemically treated wood include untreated wood, steel (painted, unpainted or coated with epoxy petroleum compound or plastic), concrete and plastic lumber; and

4. All removal of chemically treated wood products (including pilings) shall follow the most recent "EPA Region 10 Best Management Practices for Piling Removal and Placement in Washington State."

EPA NWP Specific Conditions:
NWP 27 is conditionally certified, subject to the general conditions listed above, except that an individual project-specific WQC is required when the project:

1. Involves dam removal; or
2. Involves greater than 1 acre of impacts to waters of the U.S.; or
3. Would impact greater than 500 linear feet of waters of the U.S.; or
4. Involves greater than 1/2 acre of impacts to tidal wetlands or waters.

Specific Tribes with Certifying Authority (Projects in Specific Tribal Areas):
WQC was issued by the Swinomish Indian Tribal Community. WQC was waived by the Confederated Tribes of the Chehalis Reservation and Colville Indian Reservation, Kalispel Tribe of Indians, Port Gamble S'Klallam Tribe, Quinault Indian Nation, and the Spokane Tribe of Indians. WQC was denied by the Lummi Nation, Makah Tribe, Puyallup Tribe of Indians, and the Tulalip Tribes; therefore, individual WQC is required from these tribes.

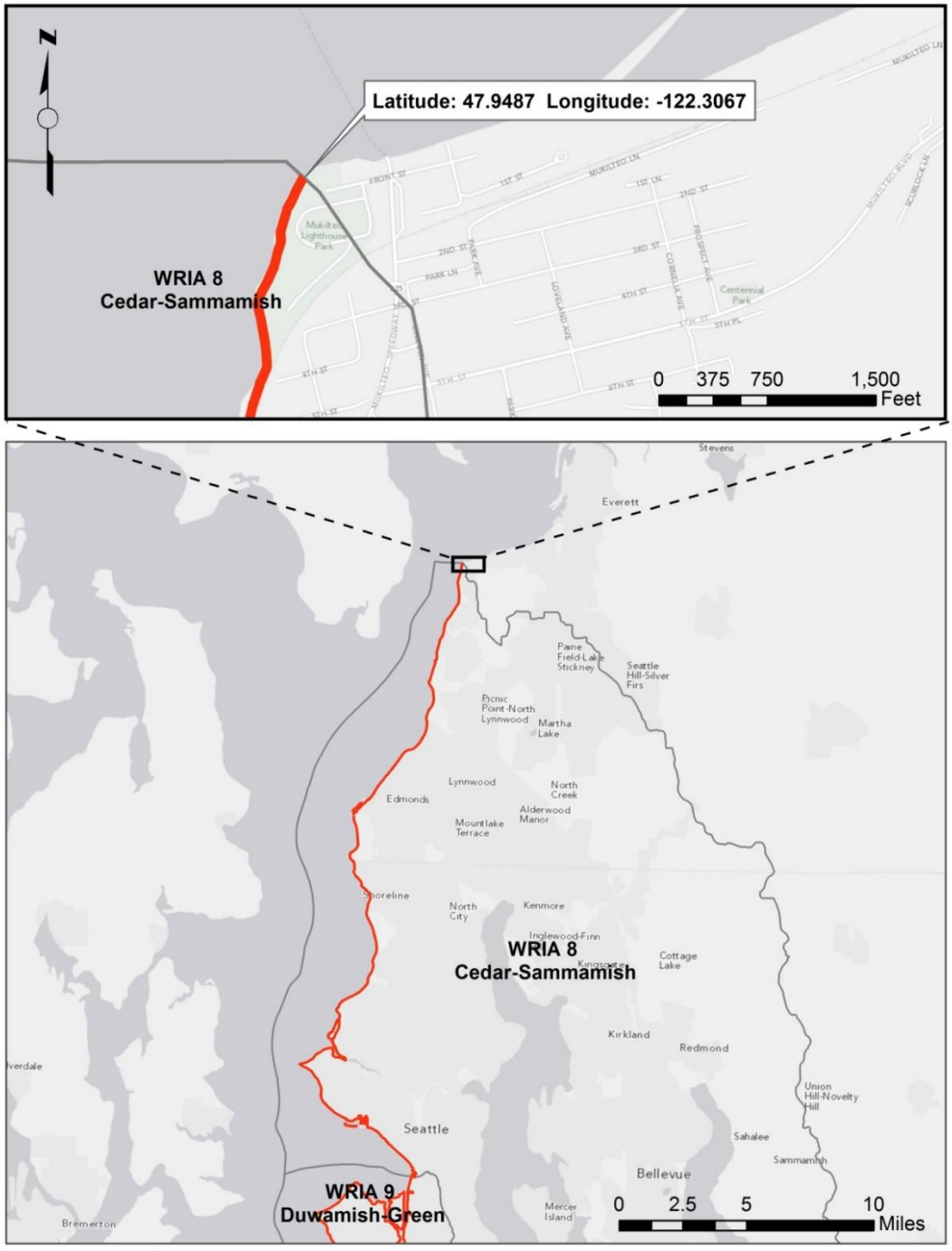
F. COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY RESPONSE FOR THIS NWP:

Ecology's determination is that they concur with conditions that this NWP is consistent with CZMA.

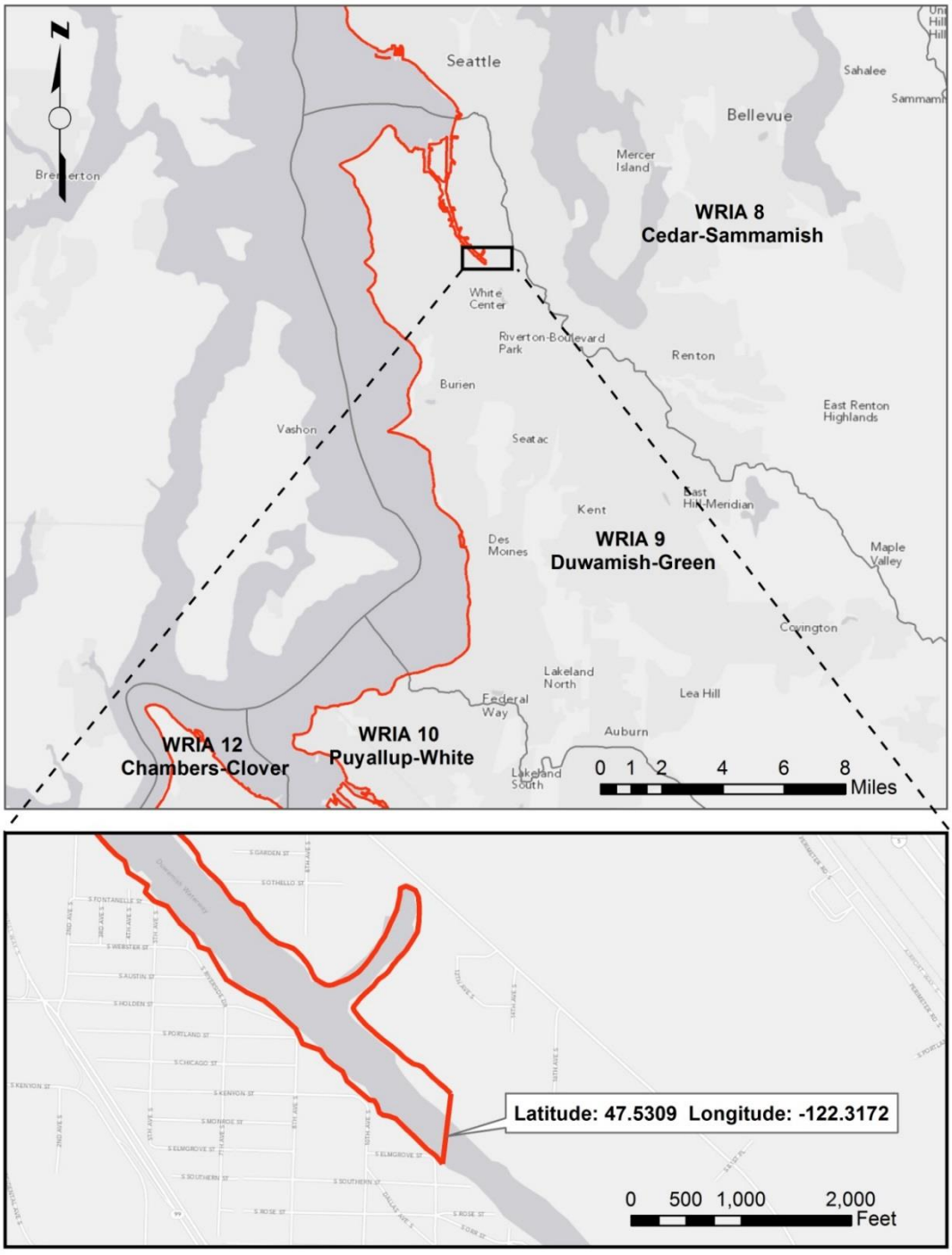
CZM Federal Consistency Response – Concur with Conditions.

1. A CZM Federal Consistency Decision is required for projects or activities under this NWP if a State 401 Water Quality Certification is required.

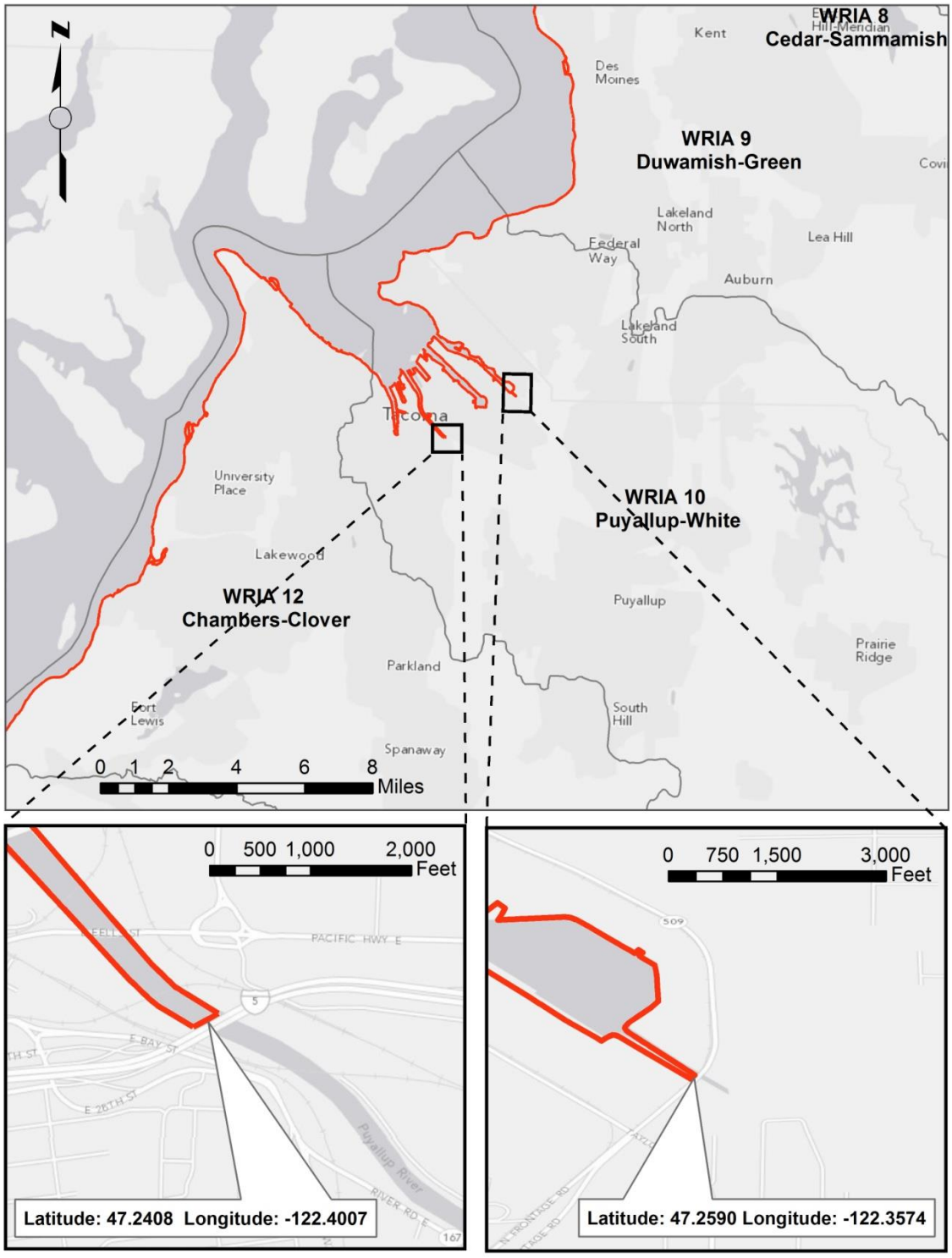
Seattle District Regional General Conditions - Figures
Figure 1: RGC 3 - WRIAs 8, 9, 10, 11, and 12
a. WRIA 8



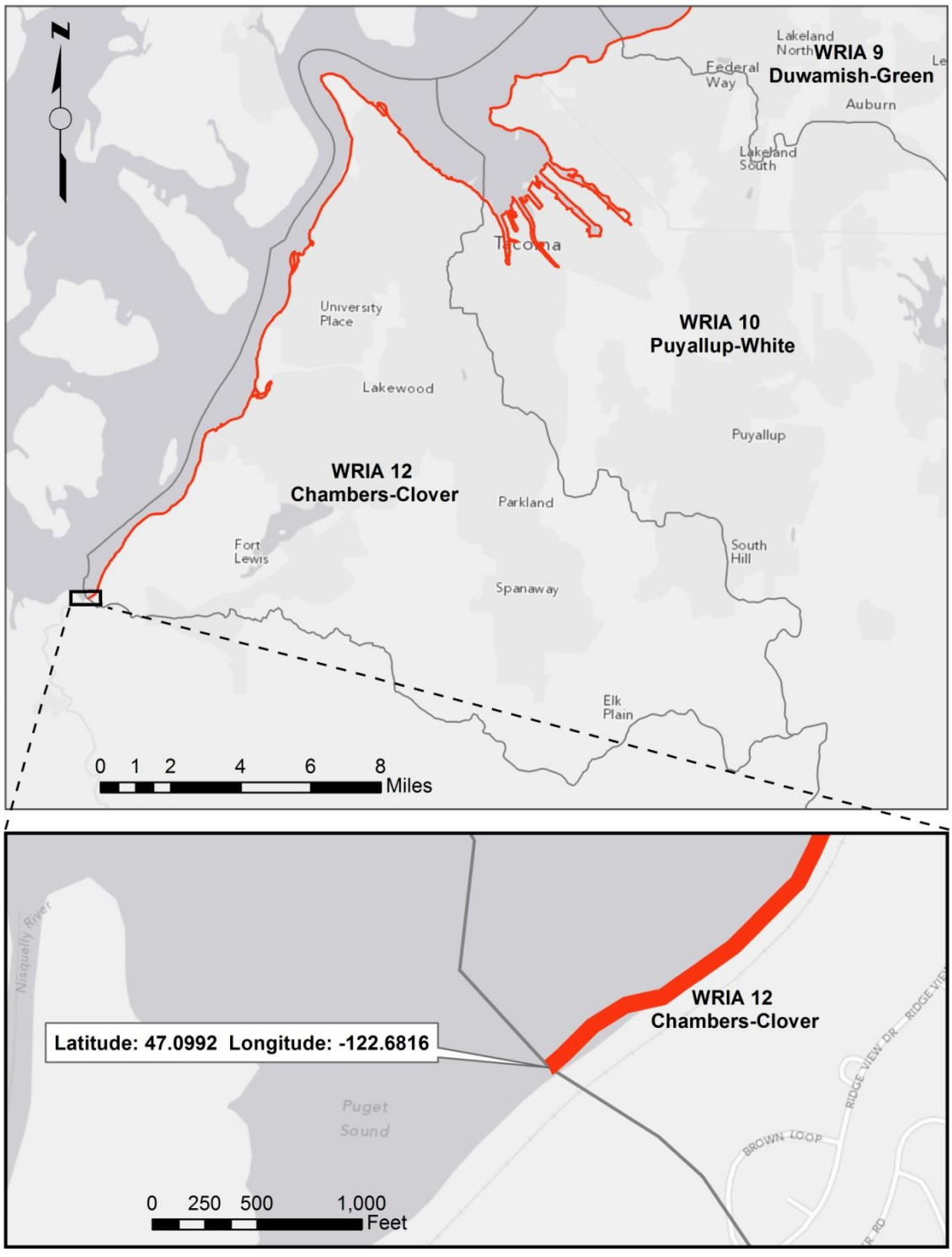
b. WRIA 9


N
Seattle
Bellevue
Sahalee
Mercer Island
WRIA 8
Cedar-Sammamish
White Center
Riverton-Boulevard Park
Renton
Burien
East Renton Highlands
Vashon
Seatac
Kent
East Hill-Meridian
Des Moines
WRIA 9
Duwamish-Green
Maple Valley
Covington
Lakeland North
Lea Hill
Federal Way
Auburn
WRIA 12
Chambers-Clover
WRIA 10
Puyallup-White
Lakeland South
0 1 2 4 6 8
Miles
Latitude: 47.5309 Longitude: -122.3172
0 500 1,000 2,000
Feet

c. WRIA 10


WRIA 8
Cedar-Sammamish
WRIA 9
Duwamish-Green
WRIA 10
Puyallup-White
WRIA 12
Chambers-Clover
Kent
Des Moines
Federal Way
Lakeland North
Lea Hill
Auburn
Lakeland South
Tacoma
University Place
Lakewood
Puyallup
Parkland
Prairie Ridge
South Hill
Spanaway
Fort Lewis
0 1 2 4 6 8 Miles
0 500 1,000 2,000 Feet
PACIFIC HWY E
E BAY ST
E 26TH ST
Puyallup River
RIVER RD E
Latitude: 47.2408 Longitude: -122.4007
0 750 1,500 3,000 Feet
Latitude: 47.2590 Longitude: -122.3574

d. WRIA 12


N
Lakeland North
WRIA 9
Duwamish-Green
Federal Way
Auburn
Lakeland South
Tacoma
University Place
WRIA 10
Puyallup-White
Lakewood
Puyallup
WRIA 12
Chambers-Clover
Parkland
Fort Lewis
South Hill
Spanaway
Elk Plain
0 1 2 4 6 8
Miles
Nisqually River
WRIA 12
Chambers-Clover
Latitude: 47.0992 Longitude: -122.6816
Puget Sound
BROWN LOOP
RIDGE VIEW DR
0 250 500 1,000
Feet

e. WRIA 11

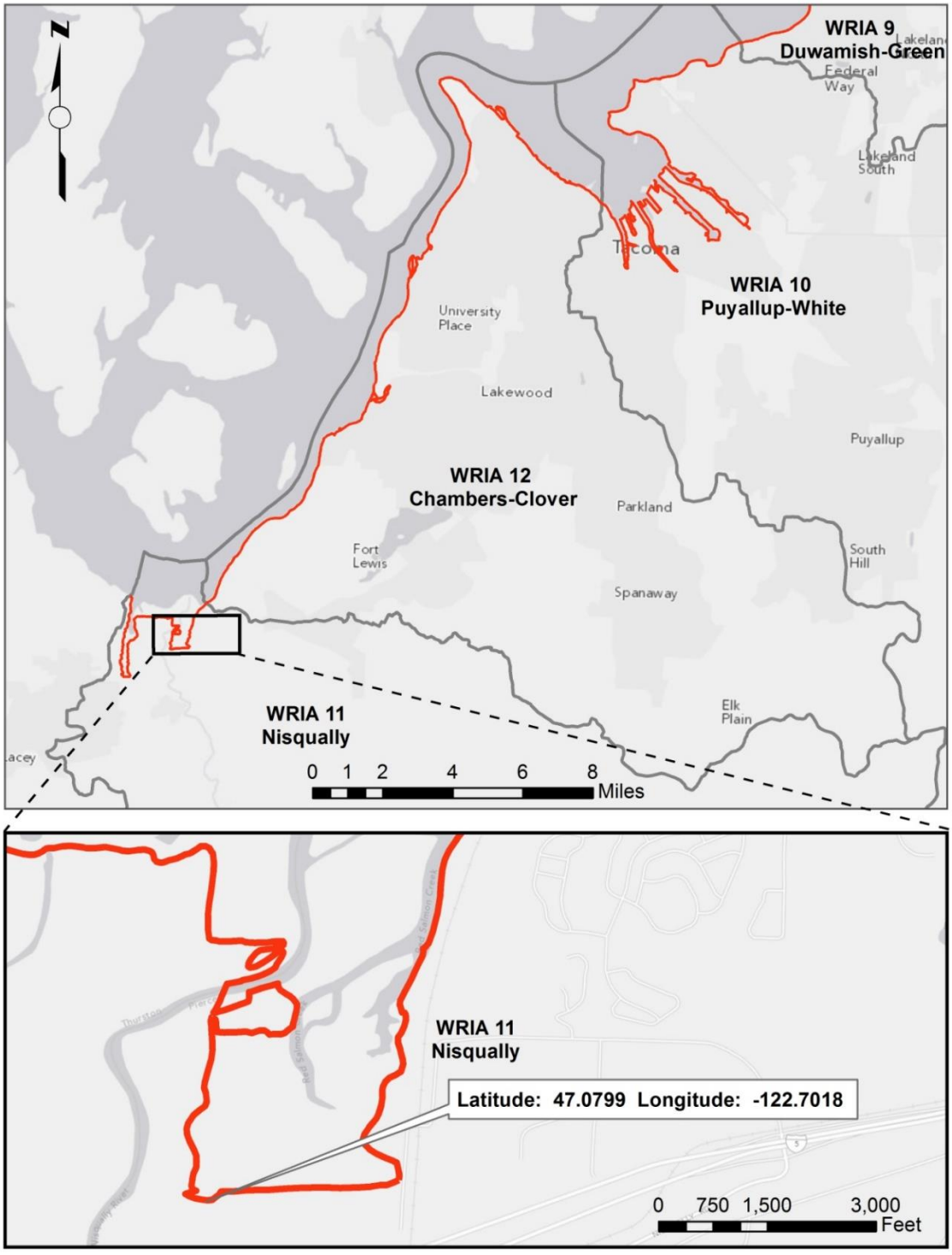
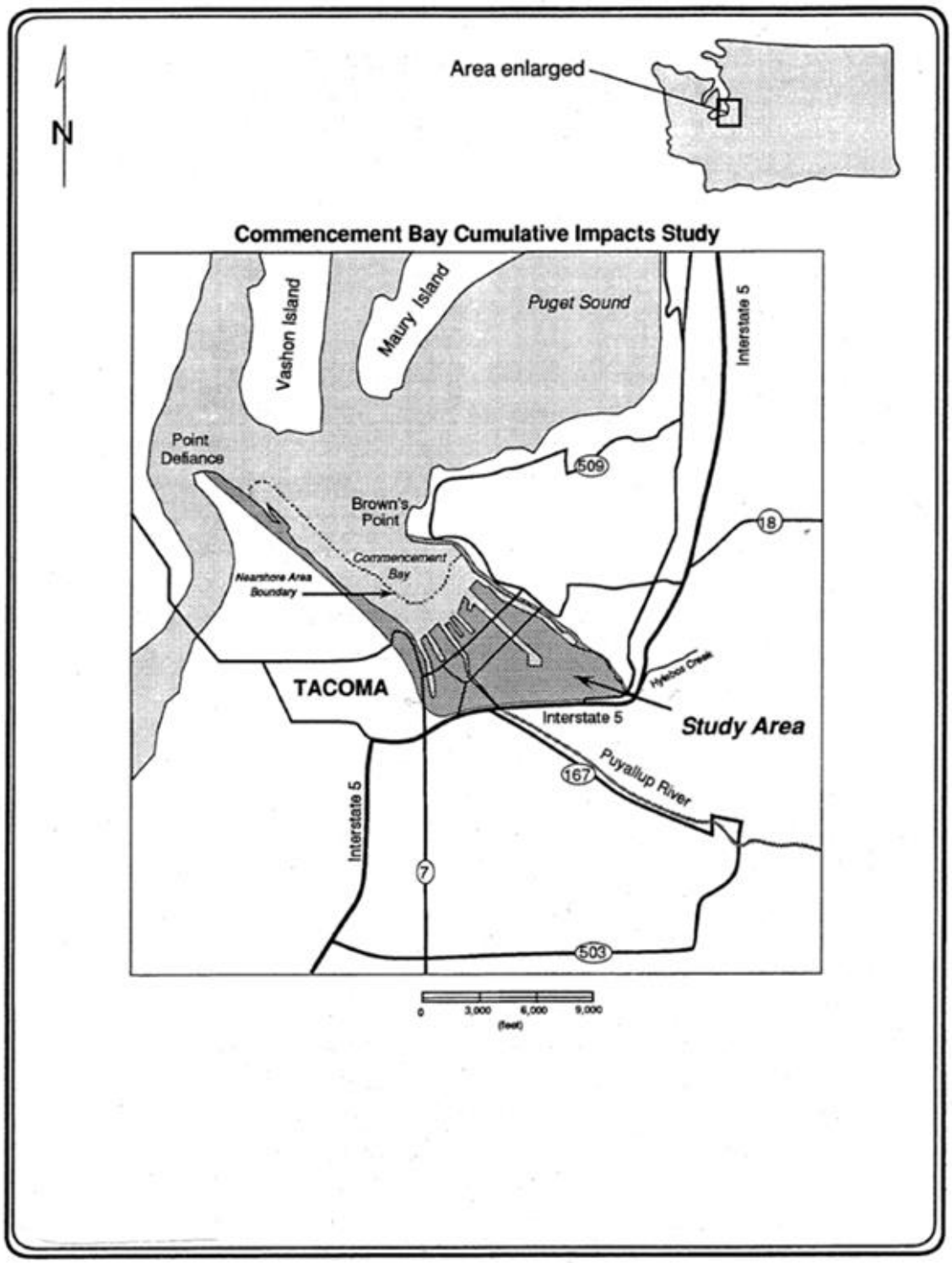

WRIA 9
Duwamish-Green
Federal Way
Lakeland South
Tacoma
WRIA 10
Puyallup-White
University Place
Lakewood
Puyallup
WRIA 12
Chambers-Clover
Parkland
Fort Lewis
South Hill
Spanaway
Elk Plain
WRIA 11
Nisqually
0 1 2 4 6 8
Miles
WRIA 11
Nisqually
Latitude: 47.0799 Longitude: -122.7018
0 750 1,500 3,000
Feet

Figure 2. RGC 4 - Commencement Bay Study Area



US Army Corps of Engineers ®
Seattle District

CERTIFICATE OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT

Permit Number: NWS-_____

Name of Permittee: _____

Date of Issuance: _____

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

NWS.Compliance@usace.army.mil OR

Department of the Army
U.S. Army Corps of Engineers Seattle District, Regulatory Branch
4735 E. Marginal Way S, Bldg 1202
Seattle, Washington 98134-2388

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

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

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

☐	Provide phone number/email for scheduling site visits (must have legal authority to grant property access). Printed Name: _____ Phone Number: _____ Email: _____

Printed Name: _____

Signature: _____

Date: _____

Evaluation of Proposed Water Resources Project Pursuant to Section 7(a) of the Wild and Scenic Rivers Act

for the Concrete-Sauk Valley Road - South Osterman Creek Culvert Replacement project
Federal Emergency Management Agency

Skagit Wild and Scenic River System
Mt. Baker – Snoqualmie National Forest

May 2024

Prepared by: Tyler Willingham

1.0 INTRODUCTION AND DEFINITION OF PROPOSED ACTIVITY

South Osterman Creek is a tributary to the Sauk River, which is part of the Skagit Wild and Scenic River (WSR) system which was designated by Congress in 1978 (Public Law 95-625, November 10, 1978). Management of the Skagit WSR is consistent with the WSRA Section 10(a) direction to protect and enhance the values which resulted in the Skagit WSR being included in the National Wild and Scenic Rivers System:

- Free-flowing characteristics and water quality of each of the four rivers.
- Outstandingly remarkable values: a) Wildlife, b) Fish, c) Scenic Qualities

The proposed Concrete-Sauk Valley Road - South Osterman Creek Culvert Replacement project requires work within the Skagit WSR corridor, which includes the Sauk River and a section of South Osterman Creek (Figure 1). As one of the three classification categories specified by the Wild and Scenic Rivers Act, this project is situated in the scenic segment. The Sauk River has migrated over 2,000 feet laterally towards Concrete-Sauk Valley Road since the mid-1990s. The channel migration has contributed to stream bed and material loss (head cutting) on South Osterman Creek resulting in perched culverts, creating fish barriers to tributary channel habitat. In addition, Concrete-Sauk Valley Road South Osterman Creek cross culvert was damaged in 2020 during Federal Emergency Management Agency (FEMA) presidentially declared disaster DR 4650 (https://www.fema.gov/disaster/4650).

Skagit County has requested FEMA Public Assistance (PA) grant funding to replace the undersized, flood damaged reinforced concrete culvert pipe (RCP) that conveys South Osterman Creek flows under Skagit County's Concrete-Sauk Valley Road with a new fish passable box culvert and complete upstream and downstream enhancement actions. The creek is a tributary to the Sauk River approximately 3.5 miles upstream of its confluence with the Skagit River near Concrete, WA. In addition to the culvert replacement, the proposed project will regrade approximately 400 feet of channel adjacent to the South Osterman culvert, most of which (approximately 225 feet) is downstream of the road embankment and within the ravine which was caused by a recent incision. A slope of 5% is proposed for the first approximately 245 feet with the lowest approximately 155 feet constructed to match the existing slope.

Section 7(a) of the Wild and Scenic Rivers (WSR) Act requires the river-administering agency to evaluate the effects of federally assisted water resources projects proposed within a WSR corridor on the river's free-flowing condition, water quality and ORVs. Thus, this project requires a Section 7(a) determination under the "direct and adverse effect" standard in Section 7(a) of the Act:

> *…no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration.*

The following report adapts the evaluation procedure as described in Section 7 Technical Report of the Interagency Wild and Scenic Rivers Coordinating Council for the purpose of an analysis.

2.0 PROJECT DESCRIPTION

The project site and the limits of the project area are approximately 1,000 feet southwest of the ordinary high-water mark (OHWM) of the Sauk River on South Osterman Creek (Figure 1. and 2).



Figure 1-Project Site Topo

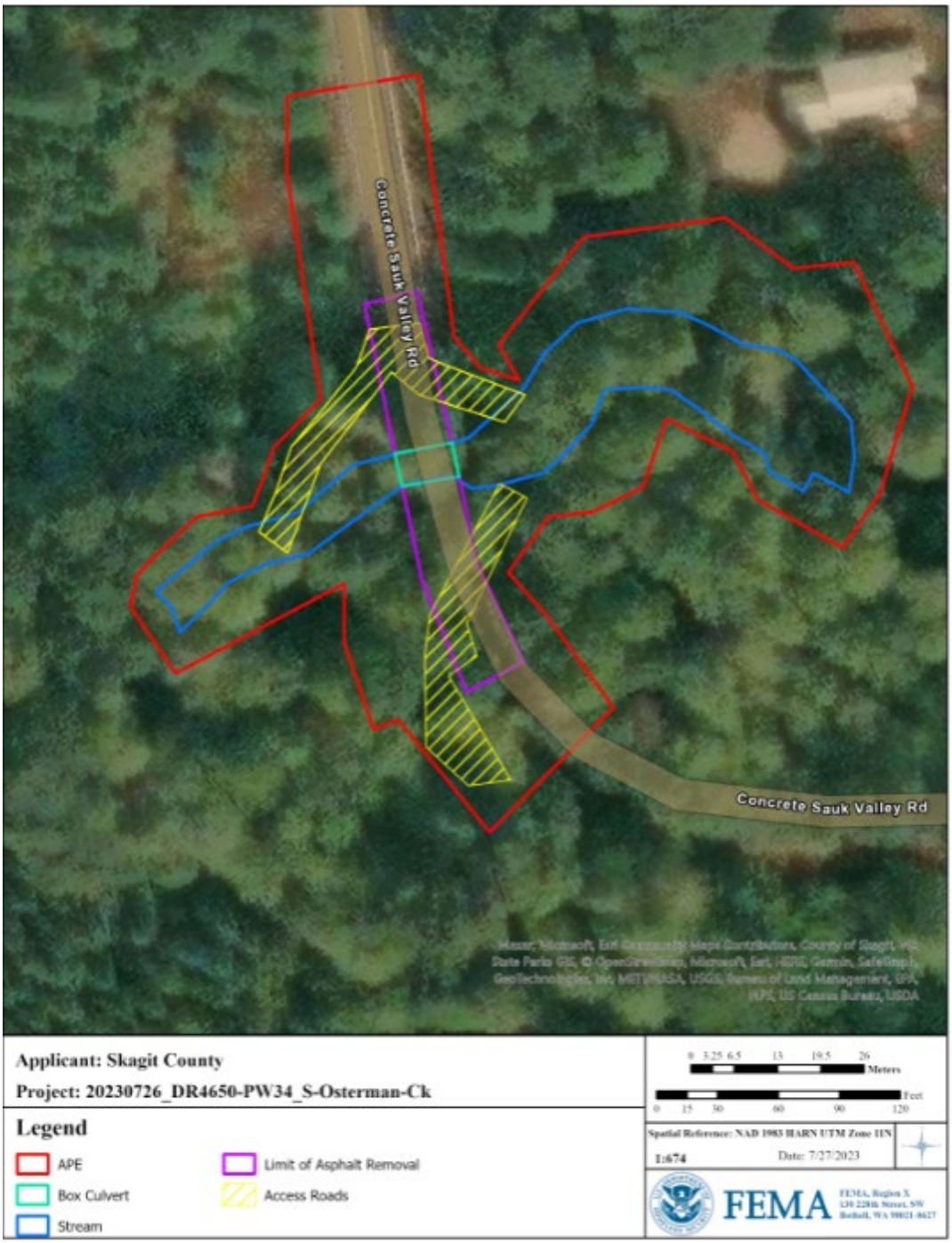


Figure 2-Project Site Aerial (APE noted in Figure 1).

The location of the project (GPS: 48.440538, -121.600860) is on Concrete Sauk-Valley Road, approximately 3 miles south of Rockport in Skagit County, WA. The stream restoration start (constructed cascade) and end (ELJs) coordinates are from GPS: 48.440330, -121.601300 to 48.440540, -121.600000. See Images below (Figure 3.).

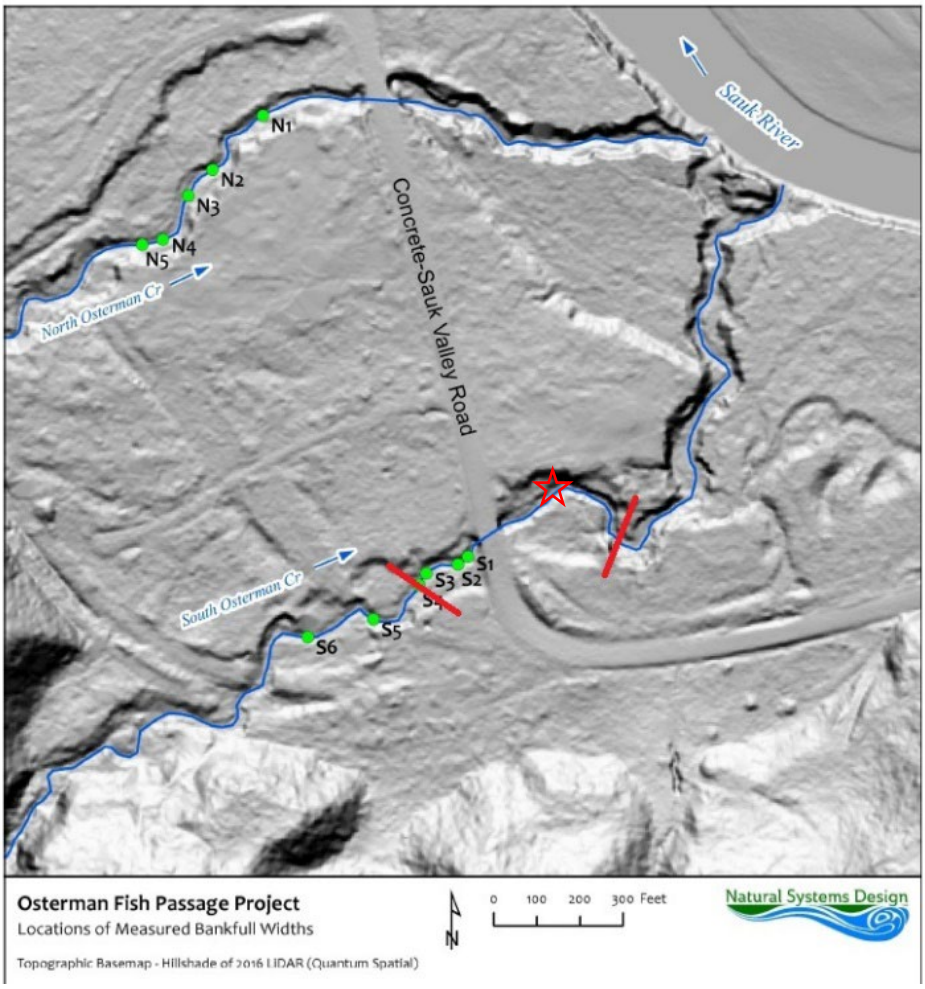


Figure 3- DEM image showing the topographic relief of the South Osterman Creek running under Concrete-Sauk Valley Rd. and into the Sauk River. The red lines are the start and end points of the proposed stream restoration work.

The Sauk River has a large basin size (714 square miles) and exhibits extreme fluctuations in flow. U.S. Geologic Survey (USGS) flow data upstream of Darrington have fluctuated from a mean daily flow of 443 cfs to a maximum in excess of 44,000 cfs. Downstream of Darrington, mainstem flows are higher from increased contributing surface waters. In this area, the Sauk River flows can range from approximately 1,080 to 106,000 cfs (USGS Flow Data: 2989500 and 2187500).

South Osterman Creek contributing flows to the Sauk River are relatively minor. The contributing basin area is 1.4 acres, and due to its small size, no historical flow records could be identified. Given the lack of historical streamflow data, published regression equations were used to generate estimates of key flows (Table 1.)

Table 1. South Osterman Creek Modeled Flows (Skagit County Public Works 2021)

Return Interval	CFS

2-Year	82
100-Year	249
500 Year	375

These published regression equations were also used to identify fish passage requirements for the new culvert and downstream and upstream mitigation efforts, as described below. Site plans for the proposed project can be found in Attachment A.

The damaged and undersized 5.2-foot diameter, 42.7-foot-long culvert will be replaced with a 44 ft. length, 21-foot-wide span, 12-foot 9-inch rise, precast reinforced concrete split-box culvert.

The proposed project will place 10 bank root wads at strategic locations to both enhance instream habitat and provide bank stability. The bank root wads will be partially embedded in the bank with the root wad end of the log protruding into the active channel to provide additional instream habitat and diverse local hydraulic conditions. Additionally, a total of 23 slash wattles (9 upstream, 14 downstream) will be added to provide roughness against erosion, held in place by small wood piles.

Lastly, the proposed project includes the regrading of the near-vertical slopes within the ravine downstream of the proposed culvert to establish stable slopes (2:1). Establishing stable slopes will primarily be completed through excavation, with minor fill as needed to create more stable slopes. Ravine slope grading is primarily focused adjacent to channel restoration work and will extend approximately 20 feet downstream of channel restoration work to gradually transition from design slopes to existing slopes. Following earthwork to lay back the ravine slopes, exposed soil will be stabilized and revegetated through seeding, placing straw wattles and straw mulch, and planting.

Any exposed soil during this process will be stabilized and revegetated through seeding, using straw wattles, straw mulch, and planting. All disturbed areas will be restored to natural ecological and geomorphic functions with riparian planting to emulate a mature, mixed coniferous and deciduous riparian forest, using native trees and shrubs, even reintroducing certain native coniferous species within the corridor. This restoration planting will occur both in the active floodplain and on the high terraces over South Osterman Creek.

3.0 PROJECT PURPOSE AND NEED

The purpose of the proposed project is to restore upstream fish passage at South Osterman Creek where it crosses Concrete-Sauk Valley Road while simultaneously enhancing instream habitat through arresting incision and erosion of the bed and banks downstream of the existing culvert.

Erosion and collapse of a portion of the culvert into the channel downstream of the road crossing and a large drop at the outlet of the culvert has been preventing upstream passage, creating channel incision, and contributing to bank erosion, which is negatively affecting instream habitat and water quality. The loss of riparian trees providing shade and the large and episodic volume

of sediment entering the creek as the banks calve into the channel continue to degrade downstream habitats and pose a threat to the stability of the road itself if not arrested.

The project will implement a restoration design which will restore fish passage using innovative channel construction methods. The proposed LBSP elements downstream of the proposed culvert will provide a diverse mix of hydraulic conditions with local areas of low gradient providing velocity refugia for aquatic organisms, including salmonids. The use of wood within the channel will provide complex instream habitat, local sediment sorting, and reduced overall shear stress acting on the channel bed by dissipating energy and lowering the effective slope along the primary flow path. Bank root wads have been included to provide additional aquatic habitat benefits both upstream and downstream of the proposed culvert.

The project will:

- Restore fish passage at South Osterman while increasing in-channel habitat and complexity.
- Replace the existing undersized culvert with appropriately sized concrete fish passable box culvert and install guard rails at the culvert crossing.
- Provide resiliency against potential future creek incision.
- Reduce sediment loading and aquatic habitat degradation downstream of the culvert associated with sloughing of the ravine banks.
- Restore mixed coniferous and deciduous riparian vegetation within the riparian corridor of the creek.

4.0 CONSTRUCTION METHODS AND TIMING

The damaged and undersized 5.2-foot diameter, 42.7-foot-long culvert will be replaced with a 44 ft. length, 21-foot-wide span, 12-foot 9-inch rise, precast reinforced concrete split-box culvert. The dimensions of the culvert have been selected to ensure that applicable requirements for freeboard within the culvert (minimum of 3-feet for South Osterman) and cover (minimum of 2.5-feet) are satisfied. Culvert bedding material will consist of a minimum of a 1-foot lift of compacted gravel (permeable ballast). Channel Restoration work will then be completed, prior to installation and sealing of culvert lid sections. Culvert removal and installation will be accomplished using tracked hydraulic excavators, or similar. No changes to the existing road geometry are proposed as part of this project. The existing road geometry will be matched when reconstructing the portion of the road which is removed during removal and replacement of the culvert.

Channel modifications of Osterman Creek will be accomplished using tracked hydraulic excavators, or similar. Construction is intended to employ piles driven by an excavator-mounted vibratory driver, or similar. Delivery, staging, and placement of all channel construction materials (streambed material, boulders, root wad logs, and racking logs) will be accomplished by

excavators fitted with a bucket and thumb attachment, or similar. The contractor will incorporate any existing local woody materials into structures as available.

The downstream channel will be reconstructed with a "log-boulder step-pool" (LBSP), a matrix of embedded woody material and stable streambed material created by placing log triangles, also referred to as engineered logjams (ELJs), at designated locations and then placing streambed material within and around the log triangles. Two piles will be driven for each log triangle to provide additional lateral stability; a total of 8 log triangles are proposed downstream of the replacement culvert. The channel reconstruction upstream of and through the replacement culvert will be a constructed cascade: boulders will be strategically placed to provide a stable framework within the channel. The combination of the upstream and downstream restoration techniques (LBSP & constructed cascade) is designed to provide a stable framework for the channel while effectively lengthening the flow path and reducing the local water surface slope, preventing further incision which had recently beset South Osterman Creek.

Equipment to be used in this project may include but are not limited to: pick-up trucks, dump trucks (including articulated dump trucks), a log delivery truck, excavators, vibratory or impact pile drivers, excavators, front-end loaders, hand-held power tools, bypass pumps, sumps for groundwater, and generators. During all stages of work, temporary access areas (see sheet 6 in the Design Plans) will need to be constructed to allow equipment to access the action areas. Each access route will be 15-30 ft. wide. For routes that will require vegetation clearing, non-invasive vegetation may be stockpiled and used as racking and slash material for ELJs. The remainder of the material will be stockpiled and scattered on the temporary access route following construction.

Temporary staging areas for equipment and materials will be located on existing paved roadways to avoid disturbing existing vegetation. All these temporary access and staging areas will be stabilized with a pad of quarry spalls or crushed rock using Best Management Practices (BMPs) in place to prevent sediment tracking offsite. Following construction, these areas will be restored, as previously mentioned, with the surfaces to be de-compacted and reshaped to match the original contour and the revegetation of native species according to the plan described above. Restoration planting will occur on both the active floodplain and the high terraces of South Osterman Creek.

5.0 ALTERATION OF WITHIN-CHANNEL CONDITIONS

The project site is located 1000 feet southwest of the OWHM of the Sauk River and will not directly affect the river or its riparian corridor (Figure 3). The South Osterman Creek Project will take place within the streambed and along the streambanks, as previously mentioned, removing a total of 1,376 CY of material below the OHWM (bed) and 1,821 CY of material above the OHWM (banks), while using a total of 1,681 CY below the OHWM (bed) and 1,023 CY above the OHWM (banks) to fill and re-grade the streambed and streambanks in order to restore the site to more favorable natural conditions for fish passage, with the addition of engineered logjams and boulder sills within the stream.

As project actions will make the above-mentioned stream alterations within South Osterman Creek, a minor contributing basin to the much larger Sauk River downstream, the free-flowing nature of the nearby Wild and Scenic Sauk River should not be affected due to these actions. The three ORVs associated with this designated river corridor shall also be either unaffected or benefit from the actions. Regarding wildlife and fish, the re-establishment of fish passage should both bring fish back into this previously impassable tributary, and with their increased presence, wildlife that depend on fish for subsistence, will also benefit and potentially increase in presence along the creek. The in-stream restoration, using a log boulder step pool design may slightly alter scenery within the corridor, but the design is of a natural quality that removes the scoured and incised streambanks, reduces sediment input to the Sauk River, and retains its scenic properties.

6.0 ALTERATION OF RIPARIAN AND/OR FLOODPLAIN CONDITION

The proposed project will not affect the floodplain or adjacent riparian corridor of the Sauk River (Figure 2. and 4.). The project does not occur in mapped floodplain of the Sauk River but does occur in unmapped floodplain and the riparian corridor of South Osterman Creek. Overall floodplain habitat functions and values of the unmapped floodplain of South Osterman Creek will be enhanced.

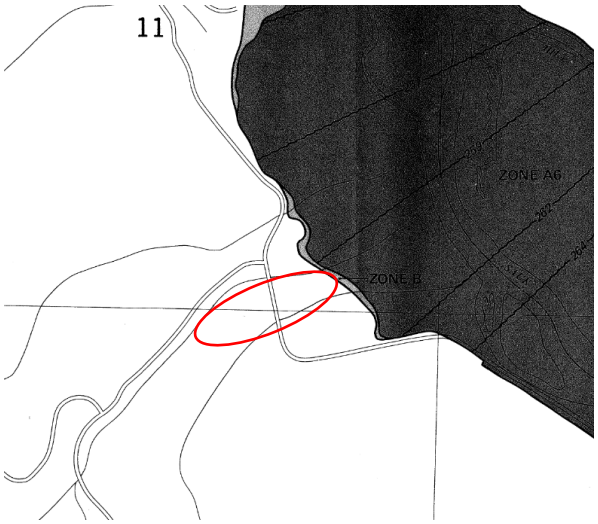


Figure 4-FEMA FIRM Map

The riparian corridor of the Sauk River (W&SR) will not be affected. The culvert replacement and fish passage upstream and downstream actions and project restoration in the short-term, will reduce vegetation coverage in the riparian zone of South Osterman Creek. All disturbed area will have soil decompacted and be revegetated with native woody and shrub vegetation to enhance the long-term habitat conditions and floodplain functions of the South Osterman Creek unmapped floodplain area. Long-term, the project is anticipated to reduce sediment and turbidity input to the Sauk River.

Although fish passage is being restored to South Osterman Creek via the upsized culvert, the additional woody and rock structures being added within the creek should prevent future excess sediment loading into the floodplain and the Sauk River downstream. As the South Osterman

basin is relatively small (1.4 acres), there are no expected impacts on the free-flowing conditions within the Sauk River. ORVs associated with the floodplain and riparian qualities of the work area will only be benefitted by the actions in this project. The upsized culvert will allow fish to pass further upland for the first time in decades. Grading back the ravine-line banks of the incised channel will prevent excess sediment from calving and being deposited within the floodplain or Sauk River. Replanting native vegetation following project actions will restore riparian qualities to the corridor.

7.0 ALTERATION OF UPLAND CONDITIONS

There won't be any modifications made to the Sauk River's riparian corridor. The width of the riparian ecosystem is typically defined by the outer edge of the zone of influence, which, in forested regions, is based on site-potential tree height (SPTH, 175 feet) measured from the edge of the active channel. The South Osterman Creek project is approximately 1000 feet southwest of the OHWM of the Sauk River (W&SR). The upper portion of the creek drains from a steep, forested watershed originating on Rinker Ridge which separates the watershed from the North Fork Stillaguamish River. The creek flows from Rinker Ridge and into the Sauk River Valley where the slope flattens dramatically. This flatter slope persists until the creek crosses Concrete Sauk Valley Road (this project site).

Upland (non-wetland/watercourse) areas affected include portions of the riparian zone of South Osterman Creek and are estimated to be approximately 0.6 acre.

The South Osterman Creek Riparian corridor will be impacted in an area of less than 1.3 acres of plant and soil, of which 0.6 acres is upland. Any areas of compacted soil will be released and replaced with a mixture of natural woody plants.

As uplands are being restored to a native vegetative state post-project, ORVs in uplands will not be measurably affected by the project. This restoration planting will occur both in the active floodplain and on the high terraces over South Osterman Creek. See pages 27-28 of the Design Plans (Attachment A) for a more detailed description of this work.

8.0 ALTERATION OF HYDROLOGIC OR BIOLOGIC PROCESSES

The channel form of the Sauk River (W&SR) will not be affected by the project. The current incision and erosional conditions with ravine-like South Osterman Creek channel are contributing to significant amounts of sediment being delivered into the creek, which eventually makes its way into the mainstem Sauk River. The regrading and stabilization of the South Osterman Creek streambanks, along with engineered logjams and constructed cascades, included this project will significantly reduce the amount of sediment loading and deposition into the creek and thus by association, reduce the amount being deposited downstream into the Sauk River, mitigating, and preventing the heavy erosion experienced under current channel conditions.

The channel form of the Sauk River (W&SR) will not be measurably affected by the project. South Osterman Creek has a contributing base of 1.4 acres in size and a modeled 100-year flood flow event at 249 cfs. Increased peak flows to the Sauk River due to new larger box culvert will be insignificant. Free-flowing conditions will likewise be insignificantly impacted.

As the project area lies nearly 1000 ft. upstream from the confluence with the Sauk River and the discharge rates (cubic feet per second) within the tributary creek are lower by orders of magnitude (see above in Introduction) compared to the river, surface and subsurface flow characteristics in the Sauk River will not be affected by the project.

Flood storage for the Sauk River will not change. Despite the opening of the culvert to allow more flow to pass downstream in South Osterman Creek, the amount of water it carries into the Sauk River will not affect flood levels significantly. With the open box culvert, there will be generally less flood storage (detention) upstream than pre-disaster.

Hydrologic and biologic processes of the Sauk River are not anticipated to be measurably altered by the project but will enhance aquatic habitat and provide additional habitat for fish to access. This potentially enhanced aquatic habitat may also attract other species that rely on riparian vegetation or increased presence of fish, and thus benefit associated ORVs (fish and wildlife).

9.0 MAGNITUDE AND EXTENT OF POTENTIAL OFF-SITE CHANGES

The project will have little to no hydrologic or physical influence on the Sauk River or the larger Skagit River system given the project's size and associated localized effects. The only anticipated changes would be increased peak flow rates to the Sauk River, due to increased culvert conveyance, and an anticipated long-term sediment and turbidity input to the Sauk River. Due to the small basin size of South Osterman Creek (1.4 acres) and modeled flows, the changes are anticipated to be de-minimis and /or dissipate quickly.

10 TIME SCALE FOR ANY EFFECTS

Skagit County intends to perform all in-water work within the Washington Department of Fish and Wildlife (WDFW)-approved work window (per Hydraulic Project Approval 2023-4-590+01, issued 10/19/2023) between August 1st and October 1st of any given year between 2024 and 2028, giving an approximate duration of 2 months to complete all work from start to finish. Short-term impacts associated with project construction, including noise, fine sediment mobilization, and temporary fish exclusion, will occur during this time.

Fish passage and potential for increase peak flows below the South Osterman Creek culvert area anticipated to occur immediately post project. Revegetation efforts will occur post-project during a period that is most applicable for success of plantings (likely fall post-project). It is anticipated that disturbed areas (less than 1.3 acres) will be fully vegetated within 3 to 5 years.

The project will eliminate an existing man-made fish barrier and restore aquatic habitat functions. The habitat improvement and fish and wildlife passage benefits within the South

Osterman Creek Culvert Replacement project will be immediate and long-term. The stream restoration work will remove the increased incision of the channel and thus enhance the scenic values of the creek. In the short-term (5-7 years), due to vegetation removal, there might be alterations in the aquatic ecosystem structure and function of South Osterman Creek by influencing factors such as light availability, sediment input, and stream temperature. These effects will diminish as the established native vegetation matures, and one of the long-term goals of the project is to reduce stream incision and associated sediment release to the Sauk River.

Due to the distance of the project site from the OHWM of the Sauk River and its riparian corridor of influence (estimated at 175 feet, SPTH), and the project scale and goals, negative effects to free-flow, sediment load, water quality, riparian area and floodplain conditions are anticipated to be minimal. There are no expected long-term negative impacts to river values for any of the alteration categories listed.

11 COMPARE PROJECT ANALYSIS TO MANAGEMENT GOALS

The project is consistent with the following management goals contained in the 1983 Skagit River Management Plan (USFS 1983):

- **Minimize conflicts between public use and private landowners within the Wild & Scenic River corridor:** There are no known conflicts between river use and private landowners caused by this project.

- **Protect and enhance the various landscapes visible from the river, as well as from its banks**: The scenery values identified in the Skagit River management plan will be enhanced by improving the scenic landscape along the South Osterman Creek. The project removes damaged, eroded, and collapsed sections of the current undersized fish passage culvert and will restore the free-flowing creek channel and banks. The project design utilizes a combination of rock and wood, to create a stable engineered wood and rock channel capable of conveying the full range of anticipated flows in the channels, while providing widely varying and diverse hydraulic conditions through the stabilized channel in the form of a log-boulder step-pool system. This design will emulate a natural look as best as possible while providing fish habitat, and thus retain the important scenic quality of the Wild and Scenic corridor in which it resides. From the Sauk River itself and its banks, downstream 1000 ft. of the project area, no visible changes in the landscape will be noticeable.

- **Protect and enhance wildlife habitat:** The project will enhance wildlife values identified in the Skagit River Management Plan by improving stream and wildlife habitat within the South Osterman Creek corridor. Several native riparian and aquatic species should benefit from the project. Specifically, bald eagles are an important species for the Skagit Wild and Scenic River System wildlife ORV, and their use of the river system is closely associated with a healthy anadromous fishery, which provides the spawner carcasses for foraging eagle populations during winter months. The fisheries enhancement benefits of the project are expected to support long- term

improvement of foraging conditions for bald eagles. The threat to aquatic habitat and the stability of existing buildings and infrastructure (private road) on private parcels due to erosion associated with head cutting upstream of the existing culverts, should be prevented as result of project actions.

- **Protect and enhance fish habitat:** The project will protect and enhance fish values as identified in the Skagit River Management Plan by improving fish passage and reducing fine sediment loads to the Sauk River. The project will eliminate the damaged and undersized fish passage culvert, reduce stream incision and associated sediment release, and restore a significant reach of spawning and rearing habitat available for adult salmonids and other species that utilize the tributary. The project will implement Washington State Stream Simulation methodology, which, like US Forest Stream Simulation, restores more natural channel pattern, profile, dimension and structure. Key elements in attaining effective fish passage, habitat complexity and continuity and improving water quality such as reduction of fine sediment. A reduction in fine sediment levels will result in better fish spawning habitat by allowing for integrity of in-stream/river gravels (important for successful egg incubation). Fish that could potentially benefit from restored fish passage and habitat restoration include all five local salmonid species (Chinook, Coho, Sockeye, Chum, Pink), along with Steelhead, bull trout, and coastal cutthroat trout populations. Presence of quality habitat for all five local salmonid species present is a key aspect of the Skagit Wild and Scenic River fisheries ORV designation.

- **Protect and enhance free-flowing characteristics of the rivers:** The project will restore free-flowing conditions to South Osterman Creek, a tributary within the Skagit WSR system. Section 16(b) of the WSRA defines free-flowing as "existing or flowing in a natural condition without impoundment, diversion, straightening rip-rapping, or other modification of the waterway." The current structure is a degraded and undersized concrete culvert which presently serves as a fish barrier. The new structure satisfies Stream Simulation standards for restoring aquatic habitat and will restore the tributary to a more natural condition. The project will not alter the current free-flowing conditions or modify the waterway of the designated Wild and Scenic Sauk River downstream, as this relatively smaller basin does not provide significant water flows to the main stem.

12 SECTION 7 DETERMINATION

This evaluation of the **Concrete-Sauk Valley Road - South Osterman Creek Culvert Replacement project** finds a determination of no direct and adverse effects to the water quality, free-flowing condition or outstandingly remarkable values of fisheries, wildlife, and scenery on the Skagit Wild and Scenic River. Rather, it satisfies the procedural methodology and design requirements of Stream Simulation for restoring aquatic habitat. It is expected that the implementation of this project will improve the free-flowing condition of the river by restoring function of the slough, enhance fisheries habitat, improve habitat for wildlife, and benefit scenic values through the clean-up, and restore the road prism of the Concrete-Sauk

Valley Road where South Osterman Creek crosses under the road, allowing for safe traffic flow. This finding is based on considerations described above.

Forest Supervisor:	
Regional Forester:	

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

May 27, 2025

Thomas Weller
Skagit County Public Works
1800 Continental Pl
Mount Vernon, WA 98273
Sent by email only: tweller@co.skagit.wa.us

RE: Coverage under the Construction Stormwater General Permit

Permit number:	**WAR314525**
Site Name:	**Concrete Sauk Valley Road, South Osterman Creek Fish Passage Project**
Location:	**Near 52763 Concrete Sauk Valley Road**
	Concrete, WA County: Skagit
Disturbed Acres:	**1.13**

Dear Thomas Weller:

The Washington State Department of Ecology (Ecology) received your Notice of Intent for coverage under Ecology's Construction Stormwater General Permit (CSWGP). This is your permit coverage letter. Your permit coverage is effective May 27, 2025.

Retain this letter as an official record of permit coverage for your site. You may keep your records in electronic format if you can easily access them from your construction site. You can get the CSWGP, permit forms, and other information at Ecology's CSWGP eCoverage Packet webpage[1]. Contact your Permit Administrator, listed below, if you want a copy of the CSWGP mailed to you. Please read the permit and contact Ecology if you have any questions.

Electronic Discharge Monitoring Reports (WQWebDMR)
This permit requires you to submit monthly discharge monitoring reports (DMRs) for the full duration of permit coverage (from the first full month of coverage to termination). Your first sampling and reporting period will be for the month of **June** and your first DMR must be submitted by **July 15, 2025**.

[1] http://www.ecology.wa.gov/eCoverage-packet

You must submit your DMRs electronically using Ecology's secure online system, WQWebDMR. To sign up for WQWebDMR go to Ecology's WQWebPortal guidance webpage[2]. If you have questions, contact the portal staff at (360) 407-7097 (Olympia area), or (800) 633-6193/Option 3, or email WQWebPortal@ecy.wa.gov.

Appeal Process
You have a right to appeal coverage under the general permit to the Pollution Control Hearing Board (PCHB). Appeals must be filed within 30 days of the date of receipt of this letter. Any appeal is limited to the general permit's applicability or non-applicability to a specific discharger. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2). For more information regarding your right to appeal, please reference Ecology's Focus Sheet: *Appeal of General Permit Coverage*[3].

Annual Permit Fees
RCW 90.48.465 requires Ecology to recover the costs of managing the permit program. Permit fees are invoiced annually until the permit is terminated. Termination conditions are described in the permit. For permit fee related questions, please contact the Water Quality Fee Unit at wqfeeunit@ecy.wa.gov or (800) 633-6193/Option 2. You can also visit Water Quality Permit Fees Webpage[4] for more information.

Ecology Field Inspector Assistance
If you have questions regarding stormwater management at your construction site, please contact your Regional Inspector, Sylvia Graham of Ecology's Bellingham Field Office at sylvia.graham@ecy.wa.gov or (360) 927-4900.

Questions or Additional Information
Ecology is here to help. Please review our Construction Stormwater General Permit webpage[5] for more information. If you have questions about the Construction Stormwater General Permit, please contact your Permit Administrator, Jasper Sogn at jasper.sogn@ecy.wa.gov or (360) 972-6524.

Sincerely,

Jeff Killelea, Manager
Permit and Technical Services Section
Water Quality Program

[2] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance
[3] https://apps.ecology.wa.gov/publications/summarypages/1710007.html
[4] https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-quality-permits/Fees
[5] www.ecology.wa.gov/constructionstormwaterpermit

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APPENDIX H

Environmental Permits

WDFW – HPA 2023-4-590+01

SEPA – MDNS

USACE – NWS 2023-92

USFS – WSR Evaluation

ECY – CSWGP WAR314525

APPENDIX I

Unanticipated Discoveries Protocol

UNANTICIPATED DISCOVERIES PROTOCOL

In the event that any ground-disturbing activities or other project activities related to this development or any future development uncover protected cultural material (see below), the following actions should be taken:

1. If the cultural material is a historic or precontact object (glass bottle, tin can, stone, bone, horn or antler tool); a historic or precontact feature (hearth, building foundation, privy), then the on-site supervisor should avoid the object, secure the location and relocate work activities to a different part of the Project area. The Project manager should then call a professional archaeologist to evaluate the discovery.
2. If ground disturbing activities encounter human skeletal remains during the course of construction, then all activity will cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance. The finding of human skeletal remains will be reported to the county medical examiner/coroner (360-416-1996) and local law enforcement (360-416-1911) in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The county coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the county medical examiner/coroner determines the remains are non-forensic, then they will report that finding to the Department of Archaeology and Historic Preservation (DAHP) who will then take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist, Dr. Guy Tasa (360-790-1633), will make a determination of whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

Cultural material that may be protected by law could include but is not limited to:

- Logging, mining, railroad, or agriculture equipment older than 50 years (Figure 1)
- Historic foundations (Figure 2)
- Historic bottles, ceramics, and soldered dot cans (Figure 3, Figure 4)
- Buried cobbles that may indicate a hearth feature (Figure 6)
- Non-natural sediment or stone deposits that may be related to activity areas of people
- Stone tools or stone flakes, projectile points (arrowheads), ground stone adzes or grinding stones (abraders) (Figure 7–Figure 10)
- Bone, shell, horn, or antler tools that may include scrapers, cutting tools, wood working wedges (Figure 11, Figure 12)
- Perennially damp areas may have preservation conditions that allow for remnants of wood and other plant fibers; in these locations there may be remains including fragments of basketry, weaving, wood tools, or carved pieces (Figure 13)
- Cultural depressions (Figure 14)
- Culturally modified trees (Figure 15, Figure 16)
- Pictographs or petroglyphs (Figure 17, Figure 18)
- Human remains



Figure 1: Example of railroad ties for UDP.



Figure 2: Example of historic foundation for UDP.



Figure 3: Example of historic glass artifacts for UDP.



Figure 4: Example of historic solder dot can for UDP



Figure 5: Example of protected shell midden for UDP.



Figure 6: Example of protected rock-lined hearth feature for UDP.



Figure 7: Example of projectile point for UDP.



Figure 8: Example of protected adze blade for UDP.



Figure 9: Example of stone tool for UDP.



Figure 10: Example of stone tool for UDP.



Figure 11: Example of bone awl for UDP.



Figure 12: Example of worked bone, beak and spines for UDP.



Figure 13: Example of cedar bark basketry for UDP.



Figure 14: Example of cultural depression (habitation) for UDP.



Figure 15: Example of bark stripped trees for UDP.



Figure 16: Example of planked tree for UDP.



Figure 17: Example of pictographs for UDP.



Figure 18: Example of petroglyphs for UDP.

CONTACT LIST

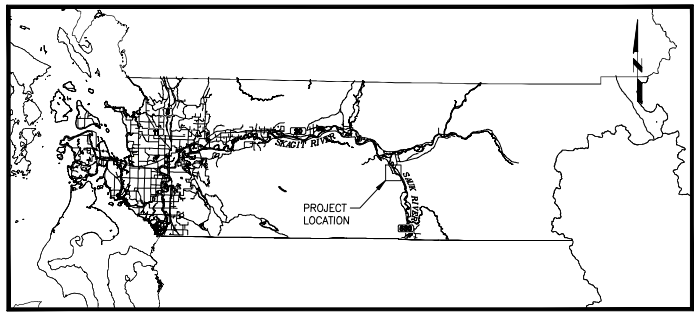
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Joel Shroyer	Skagit County	360-708-4426 360-416-1473	joels@co.skagit.wa.us
Eric Cunningham	FEMA	253-512-7408	eric.cunningham@mil.wa.gov
Sheriff	Skagit County	360-416-1911	
Coroner	Skagit County	360-416-1996	
Mary Porter	Sauk-Suiattle Indian Tribe	360-436-0333	mporter@sauk-suiattle.com
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Josephine Jefferson	Swinomish Indian Tribal Community	360-466-7352	jjefferson@swinomish.nsn.us
Scott Schyler	Upper Skagit Indian Tribe	360-982-8218	sschuyler@upperskagit.com
Robert Whitlam	Washington State DAHP, State Archaeologist	360-890-2615	Rob.Whitlam@dahp.wa.gov
Guy Tasa	Washington State DAHP, State Physical Anthropologist	360-790-1633	Guy.Tasa@dahp.wa.gov
Kelly Bush	Project Archaeologist (ERCI)	360-661-0356	kelrbush@equinoxerci.com

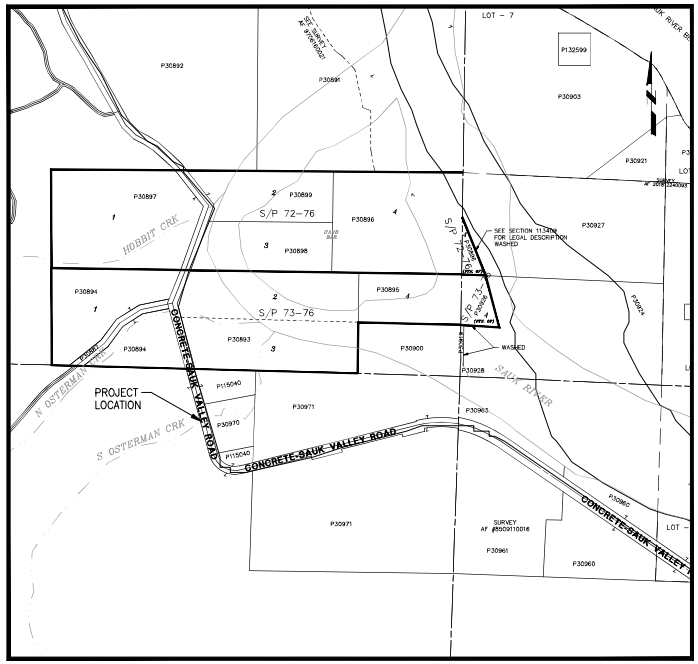
APPENDIX J

Vicinity Map and Plans

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

EO214-5





VICINITY MAP NTS

SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	MOBILIZATION	L.S.	1
2	MINOR CHANGE	EST.	1
3	SPCC PLAN	L.S.	1
4	TYPE B PROGRESS SCHEDULE	L.S.	1
5	STRUCTURE SURVEYING	L.S.	1
6	ROADWAY SURVEYING	L.S.	1
7	CHANNEL SURVEYING	LS	1
8	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	1
9	WORK ZONE SAFETY CONTINGENCY	EST.	1
10	CONSTRUCTION SIGNS CLASS A	S.F.	420
11	PORTABLE CHANGEABLE MESSAGE SIGN	HR	2,016
12	PAINT LINE	L.F.	1,300
13	FISH EXCLUSION ASSISTANCE	EST.	1
14	FISH BLOCK NET MAINTENANCE	EST.	1
15	CLEARING AND GRUBBING	ACRE	1
16	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	1
17	SAWCUTTING	IN-FT	150
18	ROADWAY EXCAVATION INCL. HAUL	C.Y.	450
19	CHANNEL EXCAVATION INCL. HAUL	CY	2,700
20	SLOPE STABILIZATION EXCAVATION INCL. HAUL	CY	530
21	SLOPE STABILIZATION FILL	CY	90
22	STRUCTURE EXCAVATION CLASS A INCL. HAUL	C.Y.	1,230
23	SHORING OR EXTRA EXCAVATION CL. A	L.S.	1
24	UNSUITABLE FOUNDATION EXCAVATION INCL. HAUL	C.Y.	90
25	TEMPORARY DEWATERING SYSTEM	L.S.	1
26	PERMEABLE BALLAST	TON	170
27	GRAVEL BORROW INCL. HAUL	TON	950
28	CRUSHED SURFACING TOP COURSE	TON	140
29	HMA CL. 1/2 IN. PG 58H-22	TON	170
30	GRAVEL BACKFILL FOR WALL	C.Y.	300
31	PRECAST REINF. CONC. SPLIT BOX CULVERT NO. 1	L.S.	1
32	TEMPORARY STREAM DIVERSION	LS	1
33	TIMBER HANDRAIL	LF	64
34	EROSION CONTROL AND WATER POLLUTION PREVENTION	L.S.	1
35	STABILIZED CONSTRUCTION ENTRANCE	S.Y.	525
36	WATTLE	L.F.	1,550
37	HIGH VISIBILITY FENCE	L.F.	1,220
38	SEEDING AND MULCHING	ACRE	0.7
39	ESC LEAD	DAY	12
40	PSIPE VINE MAPLE, 1 GAL	EACH	69
41	PSIPE BIGLEAF MAPLE, 1 GAL	EACH	28
42	PSIPE COMMON YARROW, 1 GAL	EACH	80
43	PSIPE RED ALDER, 1 GAL	EACH	12
44	PSIPE KINNIKINNICK, 4"	EACH	80
45	PSIPE TALL OREGONGRAPE, 1 GAL	EACH	99
46	PSIPE REDOSIER DOGWOOD, 1 GAL	EACH	90
47	PSIPE BEAKED HAZELNUT, 1 GAL	EACH	21
48	PSIPE BLACK HAWTHORN, 1 GAL	EACH	12
49	PSIPE OSOBERRY, 1 GAL	EACH	46
50	PSIPE WESTERN SWORDFERN, 1 GAL	EACH	177
51	PSIPE DOUGLAS-FIR, 1 GAL	EACH	48
52	PSIPE SPREADING GOOSEBERRY, 1 GAL	EACH	46
53	PSIPE THIMBLEBERRY, 1 GAL	EACH	46
54	PSIPE SALMONBERRY, 1 GAL	EACH	90
55	PSIPE PACIFIC WILLOW, 4' LIVE STAKE	EACH	161
56	PSIPE RED ELDERBERRY, 1 GAL	EACH	45
57	PSIPE SNOWBERRY, 1 GAL	EACH	112
58	PSIPE WESTERN RED CEDAR, 1 GAL	EACH	16
59	WOOD CHIP MULCH	C.Y.	60
60	BEAM GUARDRAIL TYPE 31 - 8 FT. LONG POST	L.F.	350
61	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	EACH	2
62	BEAM GUARDRAIL ANCHOR TYPE 11	EACH	2
63	BOX CULVERT GUARDRAIL STEEL POST TYPE 31	EACH	8
64	CABLE FENCE	L.F.	114
65	PERMANENT SIGNING	L.S.	1
66	STREAMBED COBBLES 12 IN.	TON	1,300
67	STREAMBED SEDIMENT	TON	1,130
68	BOULDER SILL	EACH	14
69	STREAMBED SAND	C.Y.	330
70	INSTREAM WOOD PLACEMENT - LOG TRIANGLE	EACH	8
71	INSTREAM WOOD PLACEMENT - BANK ROOTWAD	EACH	10
72	INSTREAM WOOD PLACEMENT - CHANNEL ROOTWAD - SHORT	EACH	9
73	INSTREAM WOOD PLACEMENT - CHANNEL ROOTWAD - LONG	EACH	5
74	INSTREAM WOOD PLACEMENT - SLASH WATTLE	EACH	23
75	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION	S.Y.	270
76	STREAMBED BOULDER TYPE 1	TON	530
77	STREAMBED BOULDER TYPE 2	TON	700
78	STREAMBED BOULDER TYPE 3	TON	480
79	STREAMBED BOULDER TYPE 4	TON	330
80	RECORD DRAWINGS	L.S.	1
81	APPRENTICESHIP INCENTIVE/PENALTY	EST.	1

FEDERAL AID NO. 4650DR-WA #674680

SKAGIT COUNTY OFFICIALS

BOARD OF COMMISSIONERS
- LISA JANICKI, CHAIR
- RON WESEN, COMMISSIONER
- PETER BROWNING, COMMISSIONER

PUBLIC WORKS
- MICHAEL SEE, DIRECTOR

APPROVED FOR CONSTRUCTION

11/03/2025

THOMAS M. WELLER, P.E. COUNTY ENGINEER — DATE

PLAN SHEET INDEX

SHEET	TITLE
1	COVER
2	GENERAL NOTES & ABBREVIATIONS
3	TESC NOTES & SWPPP ELEMENTS
4	TEMPORARY TRAFFIC CONTROL PLAN (1 OF 4)
5	TEMPORARY TRAFFIC CONTROL PLAN (2 OF 4)
6	TEMPORARY TRAFFIC CONTROL PLAN (3 OF 4)
7	TEMPORARY TRAFFIC CONTROL PLAN (4 OF 4)
8	TESC PLAN
9	SITE PREPARATION PLAN
10	SITE ISOLATION & DEWATERING
11	SITE ISOLATION & DEWATERING DETAILS
12	ROAD PLAN & PROFILE
13	SUPERELEVATION DIAGRAM & TYPICAL SECTIONS
14	ROAD X-SECTIONS
15	STRUCTURAL NOTES
16	CULVERT PLAN & ELEVATION
17	CULVERT WINGWALL LAYOUTS
18	CULVERT HEADWALL LAYOUTS
19	CHANNEL PLAN
20	CHANNEL PROFILE
21	TYPICAL CHANNEL SECTIONS
22	CHANNEL SECTIONS (1 OF 3)
23	CHANNEL SECTIONS (2 OF 3)
24	CHANNEL SECTIONS (3 OF 3)
25	CHANNEL CONSTRUCTION SEQUENCE
26	CHANNEL STRUCTURE DETAILS (1 OF 3)
27	CHANNEL STRUCTURE DETAILS (2 OF 3)
28	CHANNEL STRUCTURE DETAILS (3 OF 3)
29	PLANTING PLAN
30	PLANT SCHEDULES & DETAILS

DAVID EVANS AND ASSOCIATES INC.
1221 Fraser St., Suite E-3
Bellingham, WA 98229
Phone: 564.565.3100

Natural Systems Design + Coastal Geologic Services

SURVEY NOTES:

HORIZONTAL DATUM: NAD83 WASHINGTON STATE PLANE NORTH ZONE
VERTICAL DATUM: NAVD88

811 Know what's **below** **Call** before you dig.
Determina lo que está **bajo tierra** **Llama** antes de excavar.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

ENGINEER OF RECORD — COUNTY ENGINEER
10-30-25

PROJECT NO.: EO214-5
FED. AID NO.: 4650DR-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

COVER

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 1 OF 30

GENERAL NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF THESE APPROVED PLANS PRESENT ON THE CONSTRUCTION SITE AT ALL TIMES.
2. THE CONTRACTOR SHALL ATTEND PRE-CONSTRUCTION CONFERENCE WITH SCPW PRIOR TO BEGINNING CONSTRUCTION.
3. ALL APPROVALS AND PERMITS REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT ARE AVAILABLE AS AN APPENDIX IN THE SPECIAL PROVISIONS. ALSO INCLUDED IS A LIST OF PERMITS THE CONTRACTOR IS RESPONSIBLE FOR PROCURING PRIOR TO CONSTRUCTION
4. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD BRIDGE AND MUNICIPAL CONSTRUCTION" CURRENT EDITION (WSDOT) AND THE "SKAGIT COUNTY ROAD STANDARDS" UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS. IN CASE OF A CONFLICT BETWEEN THE REGULATORY SPECIFICATIONS OR STANDARDS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL. ALL REFERENCES TO "SPECIFICATION SECTIONS" REFER TO THE MOST CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" (WSDOT) UNLESS OTHERWISE NOTED.
5. THIS PROJECT MAY REQUIRE VARIOUS PERMITS AS OUTLINED IN THE PROJECT SPECIFICATION'S GENERAL PROVISIONS. ALL WORK SHALL BE PERFORMED IN A MANNER WHICH ENSURES CONFORMANCE WITH ANY PERMIT REQUIREMENTS.
6. UNDERGROUND UTILITIES ARE KNOWN TO EXIST IN THE AREA OF CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE UTILITY OWNERS FOR LOCATIONS AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT. THE ONE-CALL NUMBER FOR UNDERGROUND UTILITIES IS: 1-800-424-5555.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF EXISTING UTILITIES AT ALL TIMES WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO, POWER, TELEPHONE, CABLE TV, AND FIBER.
8. THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 48 HOURS IN ADVANCE OF ANY WORK AFFECTING ACCESS OR SERVICE AND SHALL MINIMIZE INTERRUPTIONS TO DRIVEWAYS FOR PROPERTY OWNERES ADJACENT TO THE PROJECT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) INCLUDING THE WASHINGTON STATE MODIFICATIONS TO THE MUTCD PRIOR TO DISRUPTION OF ANY TRAFFIC. THE CONTRACTOR MAY CHOOSE TO ADOPT THE TRAFFIC CONTROL PLANS PROVIDED IN THIS PLAN SET OR SUBMIT AN ALTERNATIVE TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLANS MUST BE APPROVED BY SCPW AND WSDOT FOR APPROVAL. THIS APPROVAL TAKES TIME AND NO WORK SHALL COMMENCE UNTIL PLANS ARE APPROVED AND ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
10. PUBLIC RIGHTS-OF-WAY SHALL BE KEPT IN A CLEAN AND SERVICEABLE CONDITION AT ALL TIMES. IN THE EVENT MATERIALS ARE INADVERTENTLY DEPOSITED ON ROADWAYS, THE MATERIAL SHALL BE PROMPTLY REMOVED.
11. ALL LAWN AND VEGETATED AREAS OUTSIDE THE PROJECT LIMITS DISTURBED BY CONSTRUCTION EQUIPMENT, VEHICLES OR PERSONNEL SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER, AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION SWPPP NOTES:

1. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES).
2. THE IMPLEMENTATION OF THIS TESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE TESC BMPS IS THE RESPONSIBILITY OF THE PERMIT HOLDER UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. CONTRACTOR SHALL CLEARLY FLAG THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. CONSTRUCT THE TESC BMPS SHOWN ON THIS PLAN IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE TESC BMPS SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, UPGRADE THESE ESC BMPS AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
6. THE PERMIT HOLDER SHALL INSPECT THE ESC BMPS DAILY AND MAINTAIN THEM AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. INSPECT AND MAINTAIN THE TESC BMPS ON INACTIVE SITES A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT (I.E. A 24-HOUR STORM EVENT WITH A 10-YR OR GREATER RECURRENCE INTERVAL).
8. AT NO TIME SHALL THE SEDIMENT EXCEED 60-PERCENT OF THE SUMP DEPTH OR HAVE LESS THAN 6-INCHES OF CLEARANCE FROM THE SEDIMENT SURFACE TO THE INVERT OF THE LOWEST PIPE. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
9. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT THE BEGINNING OF CONSTRUCTION AND MAINTAIN FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

ENVIRONMENTAL NOTES:

1. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED BY THE CONTRACTOR IN COMPLIANCE WITH THE DOE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON ADDRESSING, AND THE WESTERN WASHINGTON HYDROLOGY MANUAL ADDRESSING ALL APPLICABLE MINIMUM REQUIREMENTS. THE AREAS OF NEW AND/OR REPLACED IMPERVIOUS SURFACE SHALL BE INCLUDED IN THE SWPPP. THE CONTRACTOR SHALL SUBMIT THE SWPPP FOR THE ENGINEER'S APPROVAL BEFORE ANY WORK BEGINS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2. THE CONTRACTOR SHALL PREPARE A SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPCC) PLAN THAT SATISFIES THE CURRENT WSDOT SPECIFICATION 1-07.15 (1) AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS. THE PLAN WILL BE REVIEWED AND APPROVED PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING, MAINTAINING, & REMOVING EROSION CONTROL MEASURES (SILT FENCE, ROCK CHECK DAMS, SILT PONDS, CATCH BASIN FILTERS, ETC.) THROUGHOUT THE DURATION OF THE PROJECT. ALL REMOVAL OF EROSION CONTROL WORK IS CONSIDERED INCIDENTAL TO THE ITEMS OF WORK IN THE CONTRACT FOR THIS PROJECT. REFER TO THE STORM WATER POLLUTION PREVENTION PLAN AND BID ITEMS NOTED IN THE CONTRACT PORTION OF THE PROJECT SPECIFICATIONS FOR SPECIFIC EROSION CONTROL NOTES.

ABBREVIATIONS

ABT	ABOUT
ALUM	ALUMINUM
AP	ANGLE POINT
ACZA	AMMONIACAL COPPER ZINC ARSENATE
BK	BACK
BMP	BEST MANAGEMENT PRACTICE
BRG	BEARING
BTWN	BETWEEN
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CL	CLASS
C/L	CENTERLINE
CLR	CLEAR, CLEARANCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONST	CONSTRUCTION
CSTC	CRUSHED SURFACING TOP COURSE
CSWGP	CONSTRUCTION STORMWATER GENERAL PERMIT
CY	CUBIC YARD
DIAM, ø	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DWL	DOWEL
DIAPH	DIAPHRAGM
E	EASTING
EA	EACH
EG	EXISTING GROUND
EL, ELEV	ELEVATION
ESC	EROSION & SEDIMENT CONTROL
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX, EXIST	EXISTING
FDN	FOUNDATION
FF	FINISHED FLOOR
FIN	FINISH
FND	FOUND
FT	FEET
IE	INVERT ELEVATION
IN	INCH
INT	INTERIOR
HMA	HOT MIX ASPHALT
JT	JOINT
LB	POUND
LF	LINEAR FEET
LONGIT	LOGITUDINAL
LS	LUMP SUM, LOW SHRINKAGE
LT	LEFT
MAX	MAXIMUM
MATL	MATERIAL
MIN	MINIMUM
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
NO	NUMBER
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OFF	ORANGE FLEXIBLE FENCING
OHWM	ORDINARY HIGH WATER MARK
OPP	OPPOSITE
PC	POINT OF CURVATURE
PCC	PORTLAND CONCRETE CEMENT
POB	POINT OF BEGINNING
POC	POINT ON CURVE
POE	POINT OF ENDING
PCF	POUNDS PER CUBIC FOOT
PK	PARKER-KALON
PNT	POINT
PRC	POINT OF REVERSE CURVE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RADIUS
RDWY	ROADWAY
RE	RIM ELEVATION
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
RP	RADIUS POINT
RR	RAILROAD
RT	RIGHT
R/W	RIGHT OF WAY
SCHED	SCHEDULE
SCPW	SKAGIT COUNTY PUBLIC WORKS
SF	SQUARE FEET
SHLD	SHOULDER
SHT	SHEET
SIM	SIMILAR
SSK HD	COUNTERSUNK HEAD
SLP	SLOPE
SPA	SPACE
SPCC	SPILL PREVENTION CONTROL COUNTERMEASURES
SPL	SPLICE
SQ	SQUARE
ST	STREET
STA	STATION
STD	STANDARD
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
SY	SQUARE YARD
SYMM	SYMMETRICAL
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEMP	TEMPORARY
TYP	TYPICAL
VC	VERTICAL CURVE
VER	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
USPS	UNITED STATES POSTAL SERVICE
W/	WITH
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
X-	CROSS
YR	YEAR

CONCRETE SAUK VALLEY ROAD ALIGNMENT TABLE

NO.	RADIUS	LENGTH	LINE/CHORD BEARING	DELTA	START STATION	END STATION	START COORDINATE	END COORDINATE
C1	190.00'	151.97'	N33°48'28"W	45°49'35"	100+00.00	101+51.97	N=526,242.9 E=1,454,214.5	N=526,365.8E=1,454,132.1
L1		248.03'	N12°16'16"W		101+51.97	104+00.00	N=526,365.8 E=1,454,132.1	N=526,608.2 E=1,454,079.4

S. OSTERMAN CREEK DESIGN ALIGNMENT TABLE

NO.	RADIUS	LENGTH	LINE/CHORD BEARING	DELTA	START STATION	END STATION	START COORDINATE	END COORDINATE
L2		26.21'	N39°26'56"E		220+00.00	219+73.79	N=526,310.5 E=1,453,997.5	N=526,330.7 E=1,454,014.2
C2	92.03'	60.45'	N58°16'06"E	37°38'20"	219+73.79	219+13.34	N=526,330.7 E=1,454,014.2	N=526,361.9E=1,454,064.7
L3		0.33'	N77°05'16"E		219+13.34	219+13.01	N=526,361.9 E=1,454,064.7	N=526,362.0 E=1,454,065.0
C3	22.15'	13.47'	N59°39'55"E	34°50'42"	219+13.01	218+99.54	N=526,362.0 E=1,454,065.0	N=526,368.7E=1,454,076.5
L4		29.95'	N42°14'34"E		218+99.54	218+69.58	N=526,368.7 E=1,454,076.5	N=526,390.9 E=1,454,096.6
C4	25.00'	15.48'	N59°59'10"E	35°29'11"	218+69.58	218+54.10	N=526,390.9 E=1,454,096.6	N=526,398.5E=1,454,109.8
L5		57.36'	N77°43'45"E		218+54.10	217+96.74	N=526,398.5 E=1,454,109.8	N=526,410.7 E=1,454,165.8
C5	51.38'	50.60'	N49°30'49"E	56°25'52"	217+96.74	217+46.14	N=526,410.7 E=1,454,165.8	N=526,442.2E=1,454,202.8
L6		1.85'	N21°17'53"E		217+46.14	217+44.29	N=526,442.2 E=1,454,202.8	N=526,443.9 E=1,454,203.5
C6	22.32'	5.42'	N28°15'18"E	13°54'49"	217+44.29	217+38.87	N=526,443.9 E=1,454,203.5	N=526,448.7E=1,454,206.0

S. OSTERMAN CREEK DESIGN ALIGNMENT TABLE (CONT.)

NO.	RADIUS	LENGTH	LINE/CHORD BEARING	DELTA	START STATION	END STATION	START COORDINATE	END COORDINATE
L7		1.20'	N35°12'42"E		217+38.87	217+37.68	N=526,448.7 E=1,454,206.0	N=526,449.7 E=1,454,206.7
C7	50.00'	69.82'	N75°12'53"E	80°00'21"	217+37.68	216+67.86	N=526,449.7 E=1,454,206.7	N=526,466.1E=1,454,268.9
L8		19.69'	S64°46'57"E		216+67.86	216+48.17	N=526,466.1 E=1,454,268.9	N=526,457.7 E=1,454,286.7
C8	61.07'	52.53'	S40°08'18"E	49°17'18"	216+48.17	215+95.63	N=526,457.7 E=1,454,286.7	N=526,418.8E=1,454,319.5
L9		3.43'	S15°29'39"E		215+95.63	215+92.20	N=526,418.8 E=1,454,319.5	N=526,415.5 E=1,454,320.4
C9	29.76'	33.69'	S47°55'26"E	64°51'33"	215+92.20	215+58.51	N=526,415.5 E=1,454,320.4	N=526,394.1E=1,454,344.1
L10		1.85'	S80°21'12"E		215+58.51	215+56.66	N=526,394.1 E=1,454,344.1	N=526,393.8 E=1,454,345.9
C10	20.00'	20.06'	N70°54'40"E	57°28'16"	215+56.66	215+36.60	N=526,393.8 E=1,454,345.9	N=526,400.0E=1,454,364.1
L11		46.71'	N42°10'32"E		215+36.60	214+89.89	N=526,400.0 E=1,454,364.1	N=526,434.7 E=1,454,395.5

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
STATE OF WASHINGTON
JAMES E. WHITMORE
21617
REGISTERED PROFESSIONAL ENGINEER
9-29-25

ENGINEER OF RECORD

PROJECT NO.: EC7145
FED. AID NO.: 46500R-WA #674680
DESIGNED BY: R.S.B.
DRAWN BY: R.S.B.
CHECKED BY: R.W.
APPROVED BY: R.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

GENERAL NOTES & ABBREVIATIONS

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
2 OF 30

CONSTRUCTION STORMWATER POLLUTION PREVENTION (SWPPP) ELEMENTS:

ELEMENT 1 – PRESERVE VEGETATION/MARK CLEARING LIMITS

a. BEFORE BEGINNING LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRADING, CLEARLY MARK ALL CLEARING LIMITS, SENSITIVE AREAS AND THEIR BUFFERS, AND TREES THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA.

b. RETAIN THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION IN AN UNDISTURBED STATE TO THE MAXIMUM DEGREE PRACTICABLE.

ELEMENT 2 – ESTABLISH CONSTRUCTION ACCESS

a. LIMIT CONSTRUCTION VEHICLE ACCESS AND EXIT TO ONE ROUTE, IF POSSIBLE.

b. STABILIZE ACCESS POINTS WITH A PAD OF QUARRY SPALLS, CRUSHED ROCK, OR OTHER EQUIVALENT BMPS, TO MINIMIZE TRACKING SEDIMENT ONTO PUBLIC ROADS.

c. LOCATE WHEEL WASH OR TIRE BATHS ON SITE, IF THE STABILIZED CONSTRUCTION ENTRANCE IS NOT EFFECTIVE IN PREVENTING TRACKING SEDIMENT ONTO PUBLIC ROADS.

d. IF SEDIMENT IS TRACKED OFF SITE, CLEAN THE AFFECTED ROADWAY THOROUGHLY AT THE END OF EACH DAY, OR MORE FREQUENTLY AS NECESSARY (FOR EXAMPLE, DURING WET WEATHER). REMOVE SEDIMENT FROM ROADS BY SHOVELING, SWEEPING, OR PICKUP AND TRANSPORT OF THE SEDIMENT TO A CONTROLLED SEDIMENT DISPOSAL AREA.

e. CONDUCT STREET WASHING ONLY AFTER SEDIMENT REMOVAL IN ACCORDANCE WITH 2.d ABOVE.

f. CONTROL STREET WASH WASTEWATER BY PUMPING BACK ON SITE OR OTHERWISE PREVENTING IT FROM DISCHARGING INTO SYSTEMS TRIBUTARY TO WATERS OF THE STATE.

ELEMENT 3 – CONTROL FLOW RATES

a. PROTECT PROPERTIES AND WATERWAYS DOWNSTREAM OF DEVELOPMENT SITES FROM EROSION AND THE ASSOCIATED DISCHARGE OF TURBID WATERS DUE TO INCREASES IN THE VELOCITY AND PEAK VOLUMETRIC FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE, AS REQUIRED BY LOCAL PLAN APPROVAL AUTHORITY.

b. WHERE NECESSARY TO COMPLY WITH 3.a (ABOVE), CONSTRUCT STORMWATER INFILTRATION OR DETENTION BMPs AS ONE OF THE FIRST STEPS IN GRADING. ASSURE THAT DETENTION BMPs FUNCTION PROPERLY BEFORE CONSTRUCTING SITE IMPROVEMENTS (E.G., IMPERVIOUS SURFACES).

c. IF PERMANENT INFILTRATION PONDS ARE USED FOR FLOW CONTROL DURING CONSTRUCTION, PROTECT THESE FACILITIES FROM SILTATION DURING THE CONSTRUCTION PHASE.

ELEMENT 4 – INSTALL SEDIMENT CONTROLS

THE PERMITTEE MUST DESIGN, INSTALL AND MAINTAIN EFFECTIVE EROSION CONTROLS AND SEDIMENT CONTROLS TO MINIMIZE THE DISCHARGE OF POLLUTANTS. AT A MINIMUM, THE PERMITTEE MUST DESIGN, INSTALL AND MAINTAIN SUCH CONTROLS TO:

a. CONSTRUCT SEDIMENT CONTROL BMPS (SEDIMENT PONDS, TRAPS, FILTERS, INFILTRATION FACILITIES, ETC.) AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPS MUST BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.

b. MINIMIZE SEDIMENT DISCHARGES FROM THE SITE. THE DESIGN, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS MUST ADDRESS FACTORS SUCH AS THE AMOUNT, FREQUENCY, INTENSITY AND DURATION OF PRECIPITATION, THE NATURE OF RESULTING STORMWATER RUNOFF, AND SOIL CHARACTERISTICS, INCLUDING THE RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT ON THE SITE.

c. DIRECT STORMWATER RUNOFF FROM DISTURBED AREAS THROUGH A SEDIMENT POND OR OTHER APPROPRIATE SEDIMENT REMOVAL BMP BEFORE THE RUNOFF LEAVES A CONSTRUCTION SITE OR BEFORE DISCHARGE TO AN INFILTRATION FACILITY. RUNOFF FROM FULLY STABILIZED AREAS MAY BE DISCHARGED WITHOUT A SEDIMENT REMOVAL BMP BUT MUST CONTROL FLOW RATES PER ELEMENT 3: CONTROL FLOW RATES.

d. LOCATE BMPS INTENDED TO TRAP SEDIMENT ON SITE IN A MANNER TO AVOID INTERFERENCE WITH THE MOVEMENT OF JUVENILE SALMONIDS ATTEMPTING TO ENTER OFF-CHANNEL AREAS OR DRAINAGES.

e. PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORMWATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION, UNLESS INFEASIBLE.

f. WHERE FEASIBLE, DESIGN OUTLET STRUCTURES THAT WITHDRAW IMPOUNDED STORMWATER FROM THE SURFACE TO AVOID DISCHARGING SEDIMENT THAT IS STILL SUSPENDED LOWER IN THE WATER COLUMN.

ELEMENT 5 – STABILIZE SOILS

a. THE PERMITTEE MUST STABILIZE EXPOSED AND UNWORKED SOILS BY APPLICATION OF EFFECTIVE BMPS THAT PREVENT EROSION. APPLICABLE BMPS INCLUDE BUT ARE NOT LIMITED TO: TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, PLASTIC COVERING, EROSION CONTROL FABRICS AND MATTING, SOIL APPLICATION OF POLYACRYLAMIDE (PAM), THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED, AND DUST CONTROL.

b. THE PERMITTEE MUST CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION.

c. THE PERMITTEE MUST CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND TO MINIMIZE DOWNSTREAM CHANNEL AND STREAM BANK EROSION.

d. DEPENDING ON THE GEOGRAPHIC LOCATION OF THE PROJECT, THE PERMITTEE MUST NOT ALLOW SOILS TO REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME PERIODS SET FORTH BELOW TO PREVENT EROSION:

WEST OF THE CASCADE MOUNTAINS CREST
DURING THE DRY SEASON (MAY 1 – SEPTEMBER 30): 7 DAYS DURING THE WET SEASON (OCTOBER 1 – APRIL 30): 2 DAYS

EAST OF THE CASCADE MOUNTAINS CREST, EXCEPT FOR CENTRAL BASIN* DURING THE DRY SEASON (JULY 1 – SEPTEMBER 30): 10 DAYS
DURING THE WET SEASON (OCTOBER 1 – JUNE 30): 5 DAYS

THE CENTRAL BASIN*, EAST OF THE CASCADE MOUNTAINS CREST DURING THE DRY SEASON (JULY 1 – SEPTEMBER 30): 30 DAYS DURING THE WET SEASON (OCTOBER 1 – JUNE 30): 15 DAYS **NOTE** THE CENTRAL BASIN IS DEFINED AS THE PORTIONS OF EASTERN WASHINGTON WITH MEAN ANNUAL PRECIPITATION OF FEWER THAN 12 INCHES.

e. THE PERMITTEE MUST STABILIZE SOILS AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST.

f. THE PERMITTEE MUST STABILIZE SOIL STOCKPILES FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND WHERE POSSIBLE, BE LOCATED AWAY FROM STORM DRAIN INLETS, WATERWAYS, AND DRAINAGE CHANNELS.

g. THE PERMITTEE MUST MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITY.

h. THE PERMITTEE MUST MINIMIZE THE DISTURBANCE OF STEEP SLOPES.

i. THE PERMITTEE MUST MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.

ELEMENT 6 – PROTECT SLOPES

a. THE PERMITTEE MUST DESIGN AND CONSTRUCT CUT-AND-FILL SLOPES IN A MANNER TO MINIMIZE EROSION. APPLICABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO, REDUCING CONTINUOUS LENGTH OF SLOPE WITH TERRACING AND DIVERSIONS, REDUCING SLOPE STEEPNESS, AND ROUGHENING SLOPE SURFACES (FOR EXAMPLE, TRACK WALKING).

b. THE PERMITTEE MUST DIVERT OFF-SITE STORMWATER (RUN-ON) OR GROUNDWATER AWAY FROM SLOPES AND DISTURBED AREAS WITH INTERCEPTOR DIKES, PIPES, AND/OR SWALES. OFF-SITE STORMWATER SHOULD BE MANAGED SEPARATELY FROM STORMWATER GENERATED ON THE SITE.

c. AT THE TOP OF SLOPES, COLLECT DRAINAGE IN PIPE SLOPE DRAINS OR PROTECTED CHANNELS TO PREVENT EROSION.

i. WEST OF THE CASCADE MOUNTAINS CREST: TEMPORARY PIPE SLOPE DRAINS MUST HANDLE THE PEAK 10-MINUTE FLOW RATE FROM A TYPE 1A, 10-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YEAR, 1-HOUR FLOW RATE PREDICTED BY AN APPROVED CONTINUOUS RUNOFF MODEL, INCREASED BY A FACTOR OF 1.6, MAY BE USED. THE HYDROLOGIC ANALYSIS MUST USE THE EXISTING LAND COVER CONDITION FOR PREDICTING FLOW RATES FROM TRIBUTARY AREAS OUTSIDE THE PROJECT LIMITS. FOR TRIBUTARY AREAS ON THE PROJECT SITE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT PROJECT LAND COVER CONDITION, WHICHEVER WILL PRODUCE THE HIGHEST FLOW RATES. IF USING THE WESTERN WASHINGTON HYDROLOGY MODEL (WWHM) TO PREDICT FLOWS, BARE SOIL AREAS SHOULD BE MODELED AS "LANDSCAPED AREA."

ii. EAST OF THE CASCADE MOUNTAINS CREST: TEMPORARY PIPE SLOPE DRAINS MUST HANDLE THE EXPECTED PEAK FLOW RATE FROM A 6-MONTH, 3-HOUR STORM FOR THE DEVELOPED CONDITION, REFERRED TO AS THE SHORT DURATION STORM.

i. PLACE EXCAVATED MATERIAL ON THE UPHILL SIDE OF TRENCHES, CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS.

j. PLACE CHECK DAMS AT REGULAR INTERVALS WITHIN CONSTRUCTED CHANNELS THAT ARE CUT DOWN A SLOPE.

ELEMENT 7 – PROTECT DRAIN INLETS

a. PROTECT ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SO THAT STORMWATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT.

b. CLEAN OR REMOVE AND REPLACE INLET PROTECTION DEVICES WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE (UNLESS A DIFFERENT STANDARD IS SPECIFIED BY THE PRODUCT MANUFACTURER).

ELEMENT 8 – STABILIZE CHANNELS AND OUTLETS

a. DESIGN, CONSTRUCT, AND STABILIZE ALL ON-SITE CONVEYANCE CHANNELS TO PREVENT EROSION FROM THE FOLLOWING EXPECTED PEAK FLOWS:

i. WEST OF THE CASCADE MOUNTAINS CREST: CHANNELS MUST HANDLE THE PEAK 10-MINUTE FLOW RATE FROM A TYPE 1A, 10-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YEAR, 1-HOUR FLOW RATE INDICATED BY AN APPROVED CONTINUOUS RUNOFF MODEL, INCREASED BY A FACTOR OF 1.6, MAY BE USED. THE HYDROLOGIC ANALYSIS MUST USE THE EXISTING LAND COVER CONDITION FOR PREDICTING FLOW RATES FROM TRIBUTARY AREAS OUTSIDE THE PROJECT LIMITS. FOR TRIBUTARY AREAS ON THE PROJECT SITE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT PROJECT LAND COVER CONDITION, WHICHEVER WILL PRODUCE THE HIGHEST FLOW RATES. IF USING THE WWHM TO PREDICT FLOWS, BARE SOIL AREAS SHOULD BE MODELED AS "LANDSCAPED AREA."

ii. EAST OF THE CASCADE MOUNTAINS CREST: CHANNELS MUST HANDLE THE EXPECTED PEAK FLOW RATE FROM A 6-MONTH, 3-HOUR STORM FOR THE DEVELOPED CONDITION, REFERRED TO AS THE SHORT DURATION STORM.

b. PROVIDE STABILIZATION, INCLUDING ARMORING MATERIAL, ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAM BANKS, SLOPES, AND DOWNSTREAM REACHES AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.

ELEMENT 9 – CONTROL POLLUTANTS

DESIGN, INSTALL, IMPLEMENT, AND MAINTAIN EFFECTIVE POLLUTION PREVENTION MEASURES TO MINIMIZE THE DISCHARGE OF POLLUTANTS. THE PERMITTEE MUST:

a. HANDLE AND DISPOSE OF ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS THAT OCCUR ON SITE IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.

b. PROVIDE COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND OTHER MATERIALS THAT HAVE THE POTENTIAL TO POSE A THREAT TO HUMAN HEALTH OR THE ENVIRONMENT. ON-SITE FUELING TANKS MUST INCLUDE SECONDARY CONTAINMENT. SECONDARY CONTAINMENT MEANS PLACING TANKS OR CONTAINERS WITHIN AN IMPERVIOUS STRUCTURE CAPABLE OF CONTAINING 110% OF THE VOLUME CONTAINED IN THE LARGEST TANK WITHIN THE CONTAINMENT STRUCTURE. DOUBLE-WALLED TANKS DO NOT REQUIRE ADDITIONAL SECONDARY CONTAINMENT.

c. CONDUCT MAINTENANCE, FUELING, AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES USING SPILL PREVENTION AND CONTROL MEASURES. CLEAN CONTAMINATED SURFACES IMMEDIATELY FOLLOWING ANY SPILL INCIDENT.

d. DISCHARGE WHEEL WASH OR TIRE BATH WASTEWATER TO A SEPARATE ON-SITE TREATMENT SYSTEM THAT PREVENTS DISCHARGE TO SURFACE WATER, SUCH AS CLOSED-LOOP RECIRCULATION OR UPLAND LAND APPLICATION, OR TO THE SANITARY SEWER WITH LOCAL SEWER DISTRICT APPROVAL.

e. APPLY FERTILIZERS AND PESTICIDES IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO STORMWATER RUNOFF. FOLLOW MANUFACTURERS' LABEL REQUIREMENTS FOR APPLICATION RATES AND PROCEDURES.

f. USE BMPS TO PREVENT CONTAMINATION OF STORMWATER RUNOFF BY pH-MODIFYING SOURCES. THE SOURCES FOR THIS CONTAMINATION INCLUDE, BUT ARE NOT LIMITED TO: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATERS, RECYCLED CONCRETE STOCKPILES, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED AGGREGATE PROCESSES, DEWATERING CONCRETE VAULTS, CONCRETE PUMPING, AND MIXER WASHOUT WATERS.

g. ADJUST THE pH OF STORMWATER OR AUTHORIZED NON-STORMWATER IF NECESSARY TO PREVENT AN EXCEEDANCE OF GROUNDWATER AND/OR SURFACE WATER QUALITY STANDARDS.

h. ASSURE THAT WASHOUT OF CONCRETE TRUCKS IS PERFORMED OFF-SITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCK DRUMS OR CONCRETE HANDLING EQUIPMENT ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS. WASHOUT OF CONCRETE HANDLING EQUIPMENT MAY BE DISPOSED OF IN A DESIGNATED CONCRETE WASHOUT AREA OR IN A FORMED AREA AWAITING CONCRETE WHERE IT WILL NOT CONTAMINATE SURFACE OR GROUNDWATER. DO NOT DUMP EXCESS CONCRETE ON SITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS. CONCRETE SPILLAGE OR CONCRETE DISCHARGE DIRECTLY TO GROUNDWATER OR SURFACE WATERS OF THE STATE IS PROHIBITED. DO NOT WASH OUT TO FORMED AREAS AWAITING LID FACILITIES.

i. OBTAIN WRITTEN APPROVAL FROM ECOLOGY BEFORE USING ANY CHEMICAL TREATMENT, EXCEPT FOR CO2, DRY ICE, OR FOOD GRADE VINEGAR TO ADJUST pH.

j. UNCONTAMINATED WATER FROM WATER-ONLY BASED SHAFT DRILLING FOR CONSTRUCTION OF BUILDING, ROAD, AND BRIDGE FOUNDATIONS MAY BE INFILTRATED PROVIDED THE WASTEWATER IS MANAGED IN A WAY THAT PROHIBITS DISCHARGE TO SURFACE WATERS. PRIOR TO INFILTRATION, WATER FROM WATER-ONLY BASED SHAFT DRILLING THAT COMES INTO CONTACT WITH CURING CONCRETE MUST BE NEUTRALIZED UNTIL pH IS IN THE RANGE OF 6.5 TO 8.5 (SU).

ELEMENT 10 – CONTROL DEWATERING

a. PERMITTEES MUST DISCHARGE FOUNDATION, VAULT, AND TRENCH DEWATERING WATER, WHICH HAVE CHARACTERISTICS SIMILAR TO STORMWATER RUNOFF AT THE SITE, INTO A CONTROLLED CONVEYANCE SYSTEM BEFORE DISCHARGE TO A SEDIMENT TRAP OR SEDIMENT POND.

b. PERMITTEES MAY DISCHARGE CLEAN, NON-TURBID DEWATERING WATER, SUCH AS WELL-POINT GROUNDWATER, TO SYSTEMS TRIBUTARY TO, OR DIRECTLY INTO SURFACE WATERS OF THE STATE, AS SPECIFIED IN ELEMENT 8: STABILIZE CHANNELS AND OUTLETS, PROVIDED THE DEWATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS. DO NOT ROUTE CLEAN DEWATERING WATER THROUGH STORMWATER SEDIMENT PONDS. NOTE THAT "SURFACE WATERS OF THE STATE" MAY EXIST ON A CONSTRUCTION SITE AS WELL AS OFF SITE; FOR EXAMPLE, A CREEK RUNNING THROUGH A SITE.

c. OTHER DEWATERING TREATMENT OR DISPOSAL OPTIONS MAY INCLUDE:
i. INFILTRATION
ii. TRANSPORT OFF SITE IN A VEHICLE, SUCH AS A VACUUM FLUSH TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE STATE WATERS.
iii. ECOLOGY-APPROVED ON-SITE CHEMICAL TREATMENT OR OTHER SUITABLE TREATMENT TECHNOLOGIES.
iv. SANITARY OR COMBINED SEWER DISCHARGE WITH LOCAL SEWER DISTRICT APPROVAL, IF THERE IS NO OTHER OPTION.
v. USE OF A SEDIMENTATION BAG WITH DISCHARGE TO A DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DEWATERING.
vi. PERMITTEES MUST HANDLE HIGHLY TURBID OR CONTAMINATED DEWATERING WATER SEPARATELY FROM STORMWATER.

ELEMENT 11 – MAINTAIN BMPS

a. PERMITTEES MUST MAINTAIN AND REPAIR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPS AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION IN ACCORDANCE WITH BMP SPECIFICATIONS.

b. PERMITTEES MUST REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS WITHIN 30 DAYS AFTER ACHIEVING FINAL SITE STABILIZATION OR AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED.

ELEMENT 12 – MANAGE THE PROJECT

a. PHASE DEVELOPMENT PROJECTS TO THE MAXIMUM DEGREE PRACTICABLE AND TAKE INTO ACCOUNT SEASONAL WORK LIMITATIONS.

b. INSPECTION AND MONITORING – INSPECT, MAINTAIN AND REPAIR ALL BMPS AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. PROJECTS REGULATED UNDER THE CONSTRUCTION STORMWATER GENERAL PERMIT (CSWGP) MUST CONDUCT SITE INSPECTIONS AND MONITORING IN ACCORDANCE WITH SPECIAL CONDITION S4 OF THE CSWGP.

c. MAINTAINING AN UPDATED CONSTRUCTION SWPPP.

ELEMENT 13 – PROTECT LOW IMPACT DEVELOPMENT (LID) BMPS

a. THE PRIMARY PURPOSE OF LID BMPS/ON-SITE LID STORMWATER MANAGEMENT BMPS IS TO REDUCE THE DISRUPTION OF THE NATURAL SITE HYDROLOGY. LID BMPS ARE PERMANENT FACILITIES.

b. PERMITTEES MUST PROTECT ALL BIORETENTION AND RAIN GARDEN FACILITIES FROM SEDIMENTATION THROUGH INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BMPS ON PORTIONS OF THE SITE THAT DRAIN INTO THE BIORETENTION AND/OR RAIN GARDEN FACILITIES. RESTORE THE FACILITIES TO THEIR FULLY FUNCTIONING CONDITION IF THEY ACCUMULATE SEDIMENT DURING CONSTRUCTION. RESTORING THE FACILITY MUST INCLUDE REMOVAL OF SEDIMENT AND ANY SEDIMENT-LADEN BIORETENTION/RAIN GARDEN SOILS, AND REPLACING THE REMOVED SOILS WITH SOILS MEETING THE DESIGN SPECIFICATION.

c. PERMITTEES MUST MAINTAIN THE INFILTRATION CAPABILITIES OF BIORETENTION AND RAIN GARDEN FACILITIES BY PROTECTING AGAINST COMPACTION BY CONSTRUCTION EQUIPMENT AND FOOT TRAFFIC. PROTECT COMPLETE LAWN AND LANDSCAPED AREAS FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT.

d. PERMITTEES MUST CONTROL EROSION AND AVOID INTRODUCING SEDIMENT FROM SURROUNDING LAND USES ONTO PERMEABLE PAVEMENTS. DO NOT ALLOW MUDDY CONSTRUCTION EQUIPMENT ON THE BASE MATERIAL OR PAVEMENT. DO NOT ALLOW SEDIMENT-LADEN RUNOFF ONTO PERMEABLE PAVEMENTS.

e. PERMITTEES MUST CLEAN PERMEABLE PAVEMENTS FOULED WITH SEDIMENTS OR NO LONGER PASSING AN INITIAL INFILTRATION TEST USING LOCAL STORMWATER MANUAL METHODOLOGY OR THE MANUFACTURER'S PROCEDURES.

f. PERMITTEES MUST KEEP ALL HEAVY EQUIPMENT OFF EXISTING SOILS UNDER LID FACILITIES THAT HAVE BEEN EXCAVATED TO FINAL GRADE TO RETAIN THE INFILTRATION RATE OF THE SOILS.

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY
PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
ENGINEER OF RECORD
9-29-25

PROJECT NO.: EC2164.5
FED. AID NO.: 46500R-WA #674680
DESIGNED BY: R.S.B. | DRAWN BY: R.S.B.
CHECKED BY: R.W. | APPROVED BY: R.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

TESC NOTES & SWPPP ELEMENTS

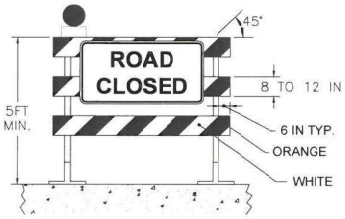
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
3 OF 30

JAJE - September 29, 2025 - 12:49 PM - P:\SKAG\0000003\10400\CAD\SHEETS\000 CAD-2020\010 DRAWINGS-CIVIL SHEETS\2017028_EC_SO.DWG

TEMPORARY TRAFFIC CONTRO_ NOTES:

1. THE DETOUR PROPOSED AS PART OF THIS TEMPORARY TRAFFIC CONTROL PLAN IS EXPECTED TO LAST 60 WORKING DAYS, OR THREE MONTHS. SUBSTANTIAL COMPLETION OF THE WORK SHOULD BE DONE BY THE CLOSING OF THE FISH WINDOW IN LATE SEPTEMBER 2026.
2. ALL TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SECTION 6 AND THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
3. ALL SIGNS SHALL BE PER WSDOT SIGN FABRICATION MANUAL, UNLESS OTHERWISE SPECIFIED. DIAMOND SHAPED SIGNS WITHIN WSDOT ROW SHALL BE 48IN X 48IN. SIGNS OUTSIDE OF WSDOT ROW MAY BE 36IN X 36IN.
4. REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS AND SECURELY COVER CONFLICTING EXISTING SIGNS.
5. A MINIMUM OF 5 CHANNELIZATION DEVICES SHALL BE USED ON TAPERS. TYPE C STEADY BURNING LIGHTS ARE REQUIRED ON ALL CHANNELIZING DEVICES USED DURING HOURS OF DARKNESS.
6. THE CONTRACTOR SHALL INSTALL AND REMOVE UPON COMPLETION OF WORK ALL NECESSARY TEMPORARY TRAFFIC CONTROL SIGNAGE, AS NOTED ON THESE PLANS.
7. NOTIFY THE FOLLOWING ENTITIES 14 DAYS PRIOR TO ANY LANE CLOSURE OR ACCESS CHANGES:
   - SKAGIT COUNTY PUBLIC WORKS DEPARTMENT
   - SKAGIT COUNTY FIRE DISTRICT 13
   - SKAGIT COUNTY SHERIFF DEPARTMENT
   - WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
   - CONCRETE SCHOOL DISTRICT
   - WASTE MANAGEMENT OF WASHINGTON INC.
   - UNITED STATES POSTAL SERVICE
   - SNOHOMISH COUNTY PUBLIC WORKS DEPARTMENT
8. DEVICES SHALL NOT ENCROACH INTO ADJACENT VEHICLE LANES OR DRIVEWAYS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE IN PROVIDING SIGNS AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO ROADS OR PROPERTY ALONG CONCRETE-SAUK VALLEY RD, CAUSED BY CONTRACTOR ACTIVITIES SHALL BE ALL FIXED AT CONTRACTOR'S COST.
10. CONCRETE-SAUK VALLEY RD SOUTH OF SAUK RIVER PARK RD AND NORTH OF FINNEY CREEK RD AND SHALL REMAIN OPEN TO PUBLIC ACCESS DURING CONSTRUCTION.



TYPE 3 BARRICADE DETAIL (1/5)
N.T.S.



SPECIAL
SIGN (A)



M4-8A
SIGN (B)



M4-9
SIGN (C)



M4-9L
SIGN (D)



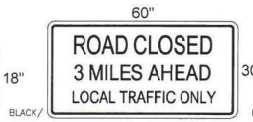
M4-9R
SIGN (E)



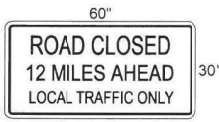
M4-10L
SIGN (F)



M4-10R
SIGN (G)



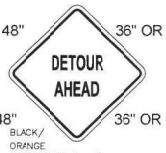
R11-3A
SIGN (H)



R11-3A
SIGN (I)



W20-1
SIGN (J)



W20-2
SIGN (K)



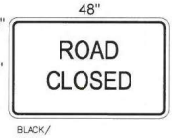
W20-3
SIGN (L)



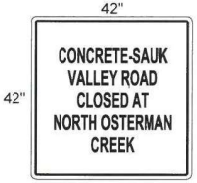
W20-3
SIGN (M)



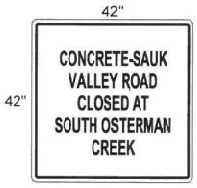
W20-5
SIGN (N)



R11-2
SIGN (O)



SPECIAL
SIGN (P)



SPECIAL
SIGN (Q)

CHANNELIZING DEVICE SPACING

POSTED SPEED MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 60	50	100
35 / 45	40	80
25 / 30	20	40

MINIMUM TAPER LENGTH = L (FEET)

LANE WIDTH (FEET)	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	550	-
11	115	165	225	294	495	550	605	660
12	125	180	245	320	540	600	650	720

MEANING OF LETTER CODES ON APPLICATION DIAGRAM

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)	100	100	100
URBAN (HIGH SPEED)	350	350	350
RURAL	500	500	500

PCMS

PANEL 1	PANEL 2
CSV RD	START ING
CLOSED	MM / DD / YY
AT MP 13	
2 SEC	2 SEC

SCENARIO "A"

PCMS

PANEL 1	PANEL 2
CSV RD	FOLLOW
CLOSED	DETOUR
AT MP 13	ROUTE
2 SEC	2 SEC

SCENARIO "B"

PORTABLE CHANGEABLE MESSAGE SIGN DETAIL (2/5)
N.T.S.

WSDOT Notes on Sheet 5 of 30.

APPROVAL EXPIRES 6 MONTHS AFTER DATE SIGNED

ACCEPTED AS NOTED
11/07/2025
WSDOT TRAFFIC OPERATIONS
Within WSDOT Right-of-Way/Limited Access Only
LOCAL AGENCY Shall Also Accept

EXHIBIT "B"
Sheet 1 of 4

DAVID EVANS AND ASSOCIATES INC

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER: M. HEITKOLF
ENGINEER OF RECORD
11-5-2025

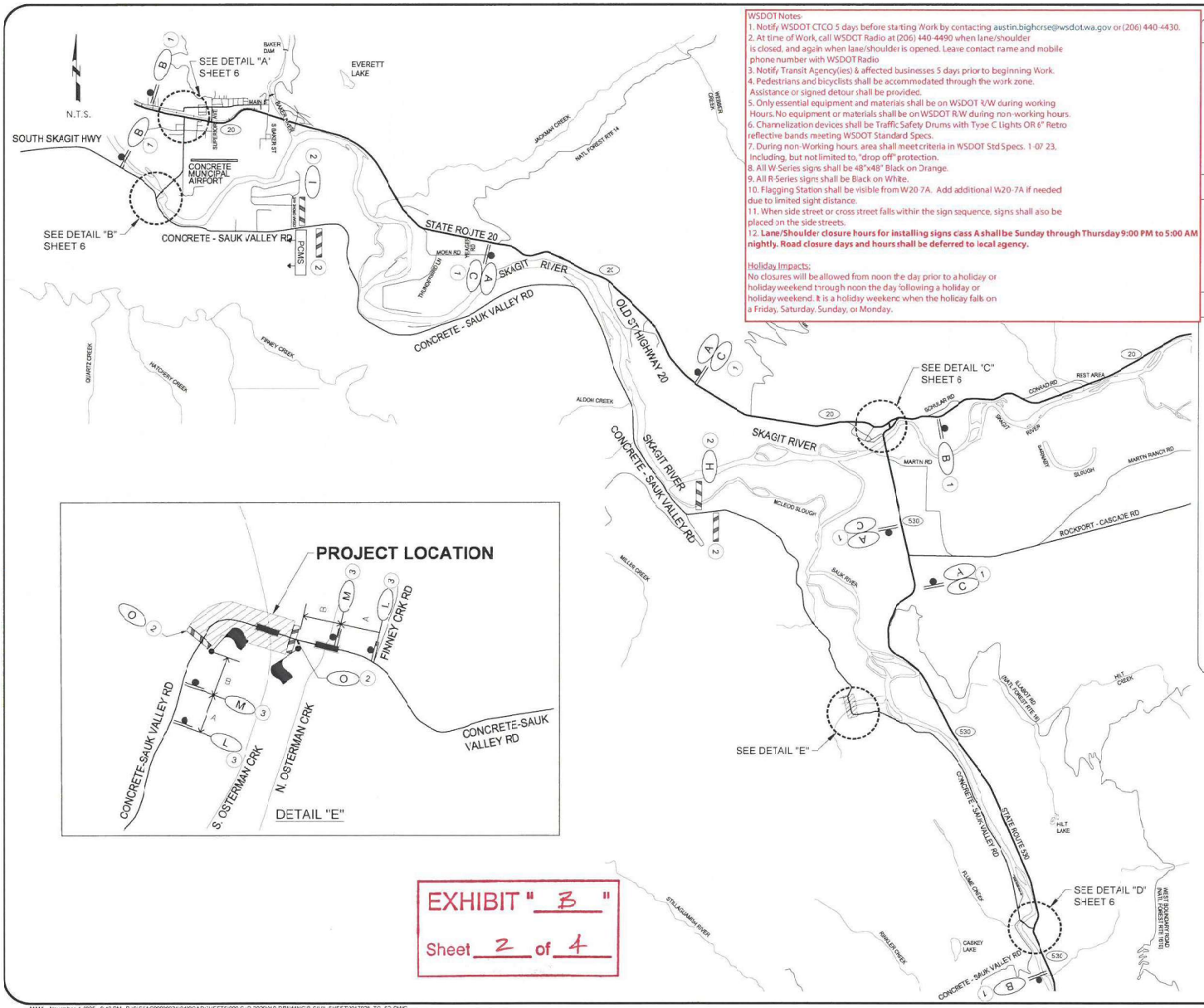
PROJECT NO. EC211-5
FED AID NO. 4850(RX-WA #674680
DESIGNED BY: —
DRAWN BY: —
CHECKED BY: R.W.
APPROVED BY: R.W.
PROJECT LOCATED NEAR: CONCRETE, WA
S14T34NR9E

CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CREEK

TEMPORARY TRAFFIC CONTROL PLAN (1 OF 4)

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 4 OF 30



WSDOT Notes:

1. Notify WSDOT CTCO 5 days before starting Work by contacting austin.bighorse@wsdot.wa.gov or (206) 440-4430.
2. At time of Work, call WSDOT Radio at (206) 440-4490 when lane/shoulder is closed, and again when lane/shoulder is opened. Leave contact name and mobile phone number with WSDOT Radio
3. Notify Transit Agency(ies) & affected businesses 5 days prior to beginning Work.
4. Pedestrians and bicyclists shall be accommodated through the work zone. Assistance or signed detour shall be provided.
5. Only essential equipment and materials shall be on WSDOT R/W during working Hours. No equipment or materials shall be on WSDOT R/W during non-working hours.
6. Channelization devices shall be Traffic Safety Drums with Type C Lights OR 6" Retro reflective bands meeting WSDOT Standard Specs.
7. During non-Working hours area shall meet criteria in WSDOT Std Specs. 1-07.23, including, but not limited to, "drop off" protection.
8. All W-Series signs shall be 48"x48" Black on Orange.
9. All R-Series signs shall be Black on White.
10. Flagging Station shall be visible from W20.7A. Add additional W20.7A if needed due to limited sight distance.
11. When side street or cross street falls within the sign sequence, signs shall also be placed on the side streets.
12. **Lane/Shoulder closure hours for installing signs class A shall be Sunday through Thursday 9:00 PM to 5:00 AM nightly. Road closure days and hours shall be deferred to local agency.**

Holiday Impacts:
No closures will be allowed from noon the day prior to a holiday or holiday weekend through noon the day following a holiday or holiday weekend. It is a holiday weekend when the holiday falls on a Friday, Saturday, Sunday, or Monday.

GENERAL NOTES

1. SIGN SPACING SHALL BE ADJUSTED TO FIT INTERSECTIONS AND DRIVEWAYS.
2. CONTRACTOR SHALL STAGE WORK TO MINIMIZE DISRUPTION TO LOCAL RESIDENTS & EMERGENCY SERVICES.
3. FOR INSTALLING AND REMOVING SIGNS ALONG SR20 AND ANY OTHER ROUTES WITH NARROW SHOULDERS, USE THE SINGLE LANE CLOSURE DETAIL TCP 1 ON PAGE 7. FOR ALL OTHER ROUTES USE THE SHOULDER CLOSURE DETAIL TCP 10.

CONSTRUCTION NOTES

1. INSTALL SIGN(S) ON 4IN X 4IN WOOD POST WHERE APPROPRIATE, PER WSDOT STD PLAN G-22.10.
2. INSTALL TYPE 3 BARRICADES AND SIGN(S) PER WSDOT STANDARDS.
3. INSTALL SIGN ON STEEL TRIPOD SECURED WITH SANDBAGS WHERE APPROPRIATE.

LEGEND

- (#) CONSTRUCTION NOTE
- (#) SIGN NUMBER
- WORK ZONE
- TYPE 3 BARRICADES AS NECESSARY TO BLOCK ROAD
- CLASS "A" CONSTRUCTION SIGN
- CLASS "B" CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC FLOW
- CHANNELIZATION DEVICE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- FLAGGER STATION

APPROVAL EXPIRES 6 MONTHS AFTER DATE SIGNED

ACCEPTED AS NOTED
Austin Stock 11/07/2025
WSDOT TRAFFIC OPERATIONS
Within WSDOT Right-of-Way/Limited Access Only
LOCAL AGENCY Shall Also Accept

DATUM
NAVD 88

SCALE:
1" = N/A
1" = N/A

DAVID EVANS AND ASSOCIATES INC.

EXHIBIT "B"
Sheet 2 of 4

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
MATTHEW A. MILLER
STATE OF WASHINGTON
21429
11-5-2025
ENGINEER OF RECORD

PROJECT NO. ED21145
FED AID NO. - 465(DP-WA #574980)
DESIGNED BY: -
DRAWN BY: -
CHECKED BY: R.W
APPROVED BY: R.W

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

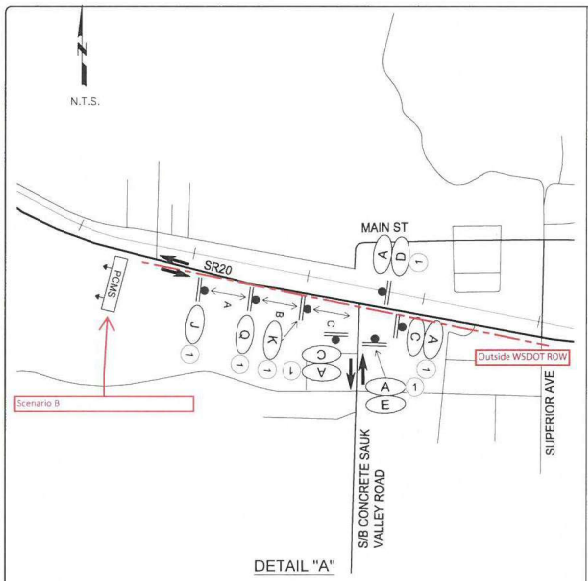
CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CREEK

TEMPORARY TRAFFIC CONTROL PLAN (2 OF 4)

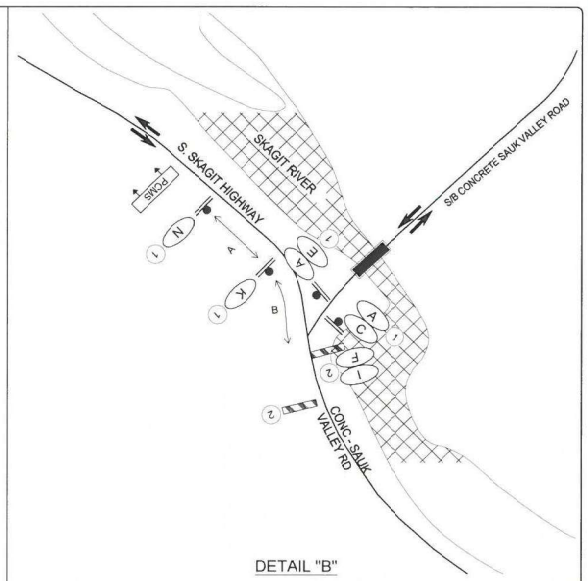
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
5 OF 30

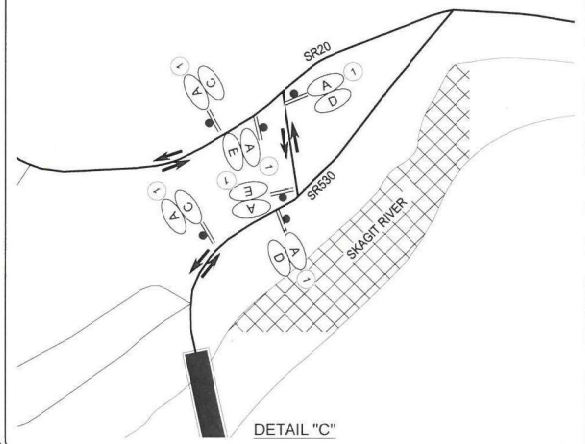
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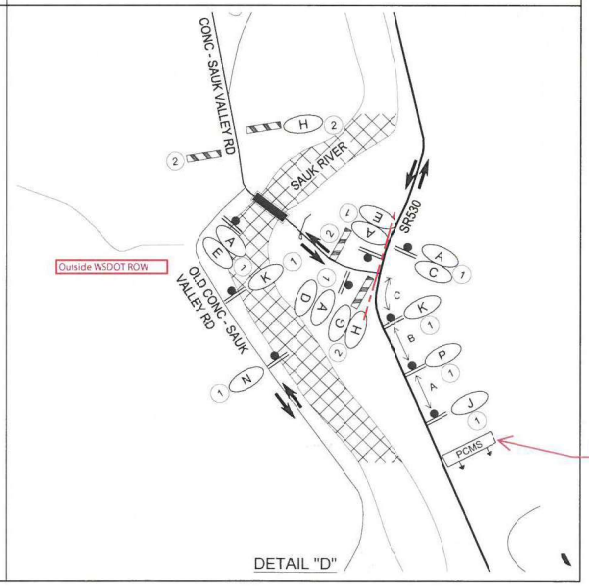
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

WSDOT Notes on Sheet 5 of 30.

GENERAL NOTES

1. SIGN SPACING SHALL BE ADJUSTED TO FIT INTERSECTIONS AND DRIVEWAYS.
2. CONTRACTOR SHALL STAGE WORK TO MINIMIZE DISRUPTION TO LOCAL RESIDENTS & EMERGENCY SERVICES.
3. FOR INSTALLING AND REMOVING SIGNS ALONG SR20 AND ANY OTHER ROUTES WITH NARROW SHOULDERS, USE THE SINGLE LANE CLOSURE DETAIL TCP 1 ON PAGE 7. FOR ALL OTHER ROUTES USE THE SHOULDER CLOSURE DETAIL TCP 10.

CONSTRUCTION NOTES

1. INSTALL SIGN(S) ON 4IN X 4IN WOOD POST WHERE APPROPRIATE, PER WSDOT STD PLAN G-22.10.
2. INSTALL TYPE 3 BARRICADES AND SIGN(S) PER WSDOT STANDARDS.
3. INSTALL SIGN ON STEEL TRIPOD SECURED WITH SANDBAGS WHERE APPROPRIATE.

LEGEND

- (#) CONSTRUCTION NOTE
- (#) SIGN NUMBER
- WORK ZONE
- TYPE 3 BARRICADES AS NECESSARY TO BLOCK ROAD
- CLASS "A" CONSTRUCTION SIGN
- CLASS "B" CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC FLOW
- CHANNELIZATION DEVICE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- FLAGGER STATION

APPROVAL EXPIRES 6 MONTHS AFTER DATE SIGNED

ACCEPTED AS NOTED
11/07/2025
WSDOT TRAFFIC OPERATIONS
Within WSDOT Right-of-Way/Limited Access Only
LOCAL AGENCY Shall Also Accept

DATUM
NAVD 88

SCALE:
1" = N/A
1" = N/A

DAVID EVANS AND ASSOCIATES INC.

EXHIBIT " 3 "
Sheet 3 of 4

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DISCLAIMER: AS-BUILT PLANS WILL BE PREPARED BY CONTRACTOR AND SUBMITTED TO ENGINEER OF RECORD

11-5-2025

PROJECT NO.: EC2114-5
FED AID NO.: 4650DR<WA #574680
DESIGNED BY: -
DRAWN BY: -
CHECKED BY: R.W.
APPROVED BY: R.W.

PROJECT LOCATED NEAR CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CREEK

TEMPORARY TRAFFIC CONTROL PLAN (3 OF 4)

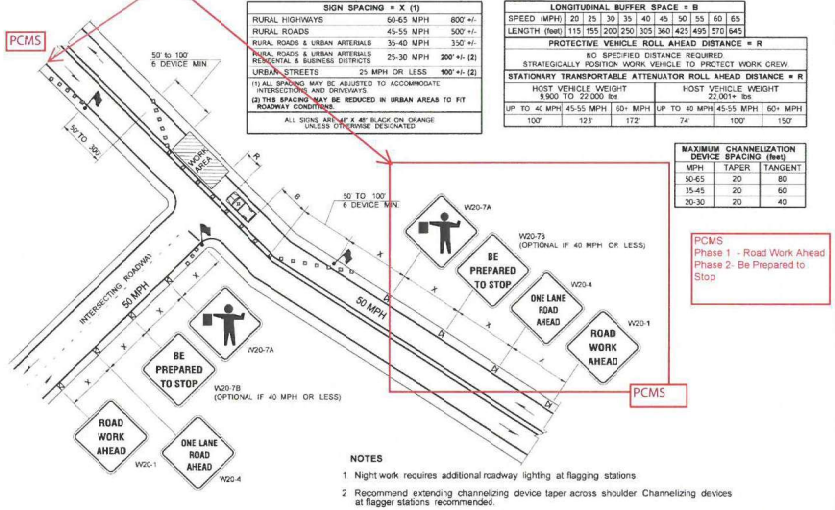
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 6 OF 30

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Accommodate same warning sign sequence and spacing X before flagging station

WSDOT Notes on Sheet 5 of 30.



SIGN SPACING = X (1)		
RURAL HIGHWAYS	60-65 MPH	600' +/-
RURAL ROADS	45-55 MPH	500' +/-
RURAL ROADS & URBAN ARTERIALS	35-40 MPH	350' +/-
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25-30 MPH	200' +/- (2)
URBAN STREETS	25 MPH OR LESS	100' +/- (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.
ALL SIGNS ARE 48" X 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED

LONGITUDINAL BUFFER SPACE = B								
SPEED (MPH)	20	25	30	35	40	45	50	55	60	65
LENGTH (feet)	115	155	200	250	305	360	425	495	570	645

PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R
NO SPECIFIED DISTANCE REQUIRED. STRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW.

STATIONARY TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R			
HOST VEHICLE WEIGHT 3,900 TO 22,000 lbs		HOST VEHICLE WEIGHT 22,001+ lbs	
UP TO 40 MPH	45-55 MPH	60+ MPH	UP TO 40 MPH	45-55 MPH	60+ MPH
100'	123'	172'	74'	100'	150'

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50-65	20	80
15-45	20	60
30-30	20	40

PCMS
Phase 1 - Road Work Ahead
Phase 2- Be Prepared to Stop

LEGEND

- FLAGGING STATION
- SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

NOTES

1. Night work requires additional roadway lighting at flagging stations.
2. Recommend extending channelizing device taper across shoulder. Channelizing devices at flagger stations recommended.
3. Protective Vehicle recommended and may be a work vehicle strategically located to shield the work area.
4. For low-volume roadways with short-duration work zones on straight roadways where the flagger is visible to road users approaching from both directions a single flagger, positioned to be visible from both directions may be used.
5. Extend the buffer space to locate the flagger station in advance of a curve, if necessary.
6. Flaggers shall provide control and direction for pedestrians.
7. Sign sequence is the same for both directions of travel on the roadway.

TYPICAL ONE-LANE, TWO-WAY TRAFFIC CONTROL WITH FLAGGERS

APPLICABLE FOR CLASS "A" SIGN INSTALL AT THE INTERSECTION OF:
SR20 & SR530
SR20 & CONCRETE SAUK VALLEY ROAD
SR530 & CONCRETE SAUK VALLEY ROAD
SOUTH SKAGIT HIGHWAY & CONCRETE SAUK VALLEY ROAD

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	50-75 MPH	1500' +/-
RURAL HIGHWAYS	60-65 MPH	600' +/-
RURAL ROADS	45-55 MPH	500' +/-

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS AT-GRADE INTERSECTIONS AND DRIVEWAYS.
ALL SIGNS ARE 48" X 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED

SHOULDER CLOSURE TAPER LENGTH = L/3								
SHOULDER WIDTH (feet)	SPEED (MPH)	45	50	55	60	65	70	75
6	L/3 (feet)	90	120	120	120	160	160	160
10		150	200	200	200	240	240	280

FOR SHOULDERS LESS THAN 6', USE 3 DEVICES MINIMUM

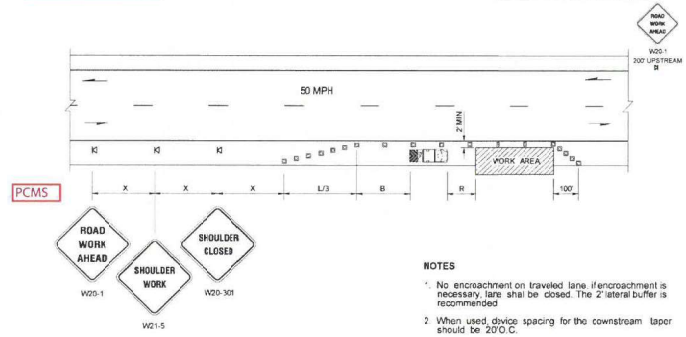
MAXIMUM CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
56-75	40	80
35-45	30	60

LONGITUDINAL BUFFER SPACE = B								
SPEED (MPH)	45	50	55	60	65	70	75
LENGTH (feet)	360	425	495	570	645	730	820

STATIONARY TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R			
HOST VEHICLE WEIGHT 3,900 TO 22,000 lbs		HOST VEHICLE WEIGHT 22,001+ lbs	
45-55 MPH	60+ MPH	45-55 MPH	60+ MPH
123'	172'	100'	150'

PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R
NO SPECIFIED DISTANCE REQUIRED. STRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW.

PCMS
Phase 1 -Shoulder work
Phase 2 - 1 mile ahead



LEGEND

- SIGN LOCATION
- CHANNELIZING DEVICES
- TMA

NOTES

1. No encroachment on traveled lane. If encroachment is necessary, lane shall be closed. The 2' lateral buffer is recommended.
2. When used, device spacing for the downstream taper should be 20'O.C.
3. If shoulder is used for traveled lanes at certain times, use full L taper and TMA.
4. TMA required for freeways.

TYPICAL SHOULDER CLOSURE - HIGH SPEED (45 MPH OR HIGHER)

APPLICABLE FOR CLASS "A" SIGN INSTALL ON:
SR20 MP88 - MP98
SR530 MP61 - MP68
CONCRETE SAUK VALLEY ROAD MP0 - MP16
SOUTH SKAGIT HIGHWAY MP23 - MP24

An 8-foot paved shoulder is required to implement a shoulder closure only. The truck-mounted attenuator (TA) must be parked on full-width pavement to ensure crash-worthiness. If the location lacks an 8-foot shoulder, a flagging operation must be used instead.

APPROVAL EXPIRES 6 MONTHS AFTER DATE SIGNED

ACCEPTED AS NOTED
11/07/2025
WSDOT TRAFFIC OPERATIONS
Within WSDOT Right-of-Way/Limited Access Only
LOCAL AGENCY Shall Also Accept

EXHIBIT "B"
Sheet 4 of 4

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
ENGINEER OF RECORD

11-5-2025

PROJECT NO.: EO21145
FED AID NO.: 4850DR(WA #67)4680
DESIGNED BY: -
DRAWN BY: -
CHECKED BY: -
APPROVED BY: -

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

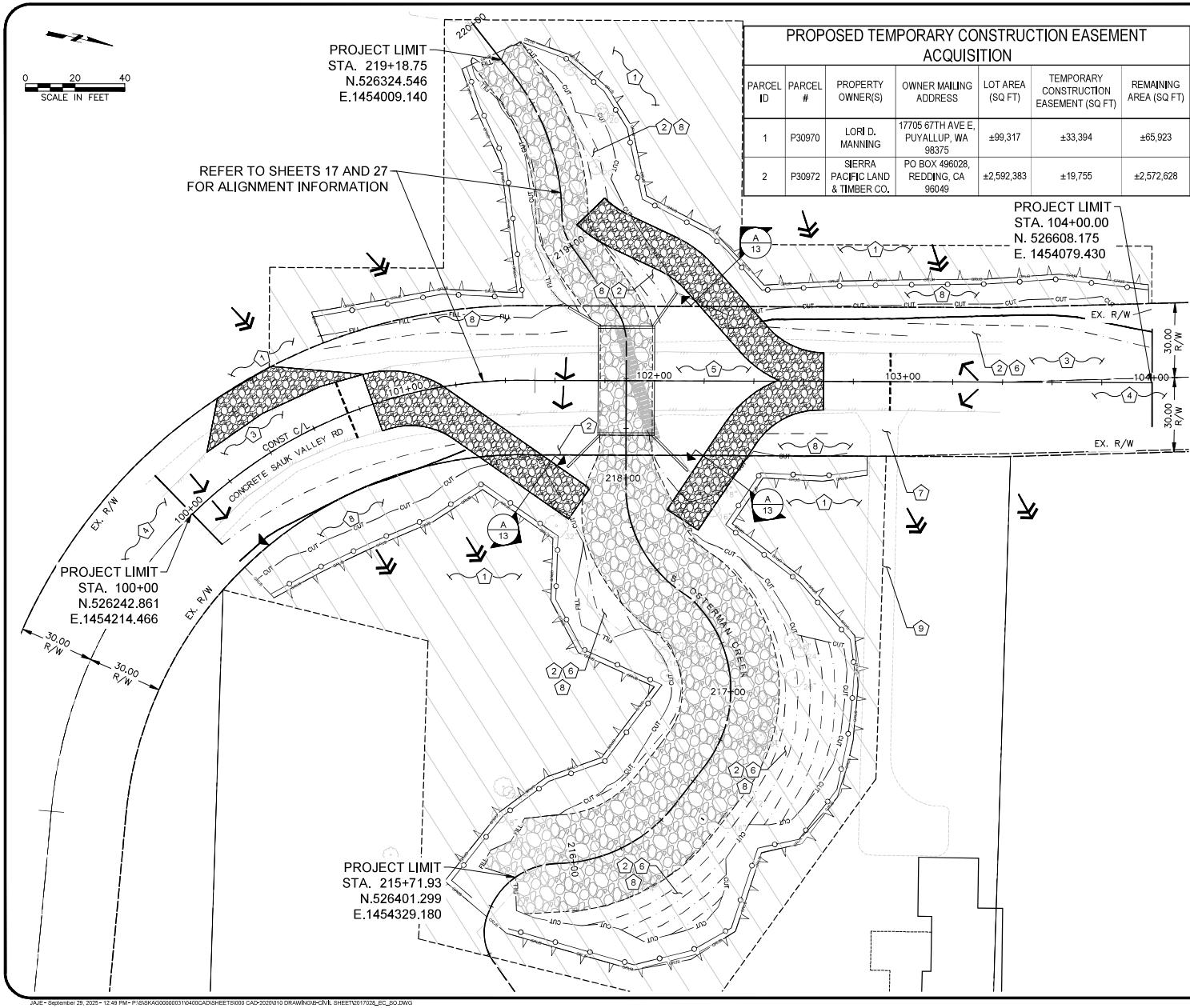
CONCRETE SAUK VALLEY ROAD
FISH PASSAGE PROJECT -
SOUTH OSTERMAN CREEK

TEMPORARY TRAFFIC CONTROL PLAN (4 OF 4)

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 7 OF 30

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PROPOSED TEMPORARY CONSTRUCTION EASEMENT ACQUISITION

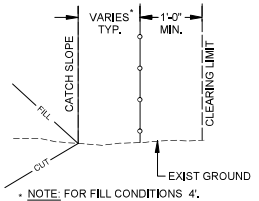
PARCEL ID	PARCEL #	PROPERTY OWNER(S)	OWNER MAILING ADDRESS	LOT AREA (SQ FT)	TEMPORARY CONSTRUCTION EASEMENT (SQ FT)	REMAINING AREA (SQ FT)
1	P30970	LORI D. MANNING	17705 67TH AVE E, PUYALLUP, WA 98375	±99,317	±33,394	±65,923
2	P30972	SIERRA PACIFIC LAND & TIMBER CO.	PO BOX 496028, REDDING, CA 96049	±2,592,383	±19,755	±2,572,628

EROSION CONTROL KEYNOTES

1. PRESERVING NATURAL VEGETATION (BMP C101).
2. SITE REVEGETATION SHALL CONFORM TO THE SPECIAL PROVISIONS AND SHEETS 25 & 26
3. MATERIALS DELIVERY, STORAGE & CONTAINMENT (BMP C153)
4. STREET CLEANING (BMP C107)
5. DUST CONTROL (BMP C140)
6. SURFACE ROUGHENING (BMP C130)
7. MAINTAIN ACCESS DURING CONSTRUCTION.
8. SEEDING & MULCHING (BMP C120 & C121). MULCHING SHALL BE "LONG-TERM MULCH" MEETING THE SPECIFICATIONS OF 9-14.5(2)A OF THE STANDARD SPECIFICATIONS.
9. DRIVEWAY LOCATION NOT SURVEYED BY LICENSED SURVEYOR. CONTRACTOR TO FIELD VERIFY LOCATION.

LEGEND

- HIGH VISIBILITY FENCE (BMP C103)
- SAW-CUTTING LIMITS (BMP C152)
- STABILIZED CONSTRUCTION ENTRANCE (C105)
- WATTLES (BMP C235)
- LIMITS OF VEGETATION REMOVAL
- DITCH
- TRAINGULAR SILT DIKE (BMP C208)
- DRAINAGE FLOW DIRECTION ARROWS (SHEET FLOW, OR SHALLOW CHANNEL FLOW) ON ROADWAY.
- DRAINAGE FLOW DIRECTION ARROWS (SHEET FLOW, OR SHALLOW CHANNEL FLOW) OFF ROADWAY.



* NOTE: FOR FILL CONDITIONS 4'.
FOR CUT CONDITIONS 4' TO 9'

DETAIL "A" HVF INSTALLATION (TYP)
N.T.S

DATUM
NAVD 88

SCALE:
1" = 20' HOR
1" = N/A

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
ENGINEER OF RECORD
9-29-25

PROJECT NO.: EC21I4-5
FED. AID NO.: 46500R-WA #674680
DESIGNED BY: R.S.B.
DRAWN BY: R.S.B.
CHECKED BY: T.M.W.
APPROVED BY: T.M.W.

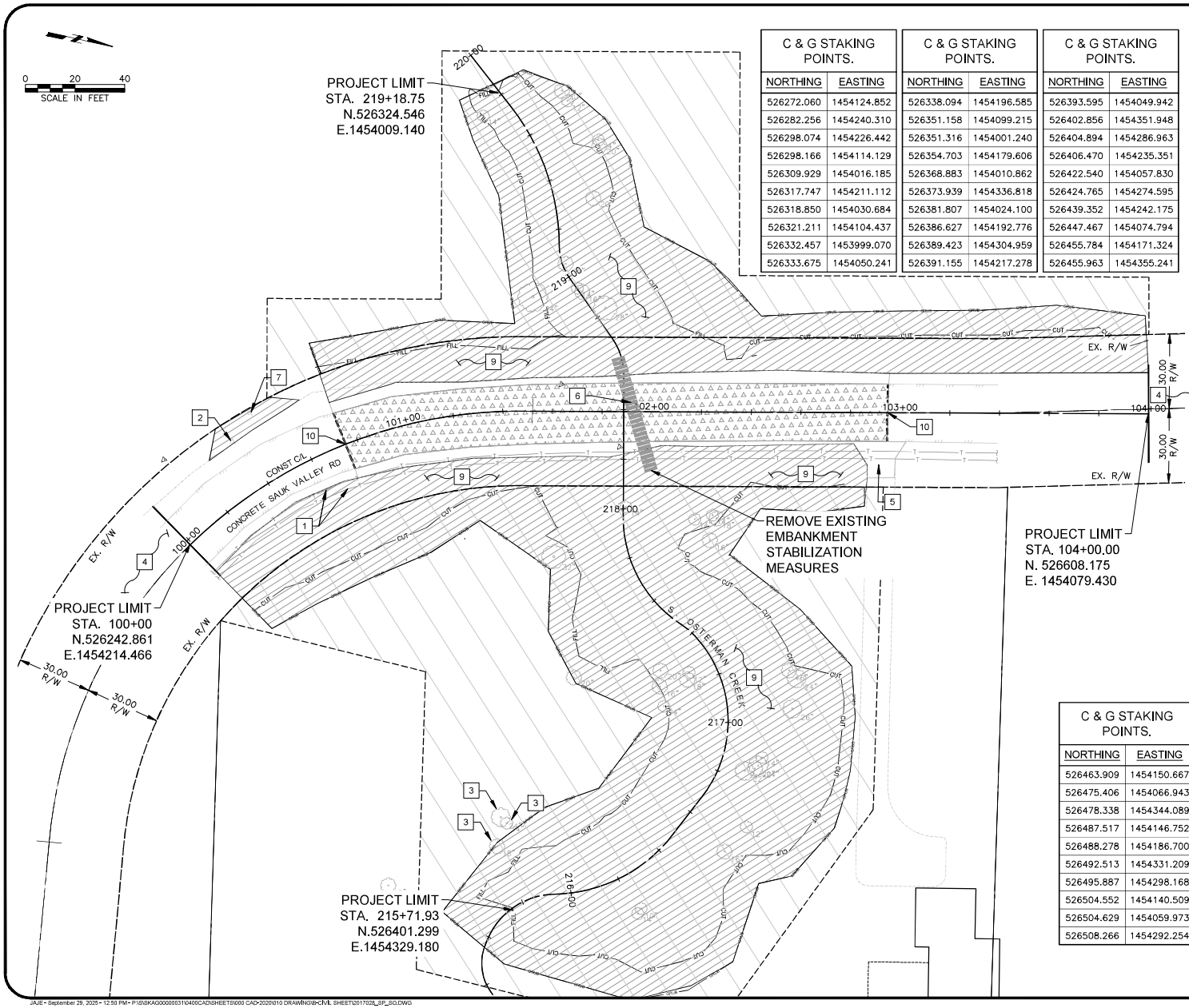
PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

TESC PLAN

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
8 OF 30



C & G STAKING POINTS.	
NORTHING	EASTING
526272.060	1454124.852
526282.256	1454240.310
526298.074	1454226.442
526298.166	1454114.129
526309.929	1454016.185
526317.747	1454211.112
526318.850	1454030.684
526321.211	1454104.437
526332.457	1453999.070
526333.675	1454050.241

C & G STAKING POINTS.	
NORTHING	EASTING
526338.094	1454196.585
526351.158	1454099.215
526351.316	1454001.240
526354.703	1454179.606
526368.883	1454010.862
526373.939	1454336.818
526381.807	1454024.100
526386.627	1454192.776
526389.423	1454304.959
526391.155	1454217.278

C & G STAKING POINTS.	
NORTHING	EASTING
526393.595	1454049.942
526402.856	1454351.948
526404.894	1454286.963
526406.470	1454235.351
526422.540	1454057.830
526424.765	1454274.595
526439.352	1454242.175
526447.467	1454074.794
526455.784	1454171.324
526455.963	1454355.241

C & G STAKING POINTS.	
NORTHING	EASTING
526463.909	1454150.667
526475.406	1454066.943
526478.338	1454344.089
526487.517	1454146.752
526488.278	1454186.700
526492.513	1454331.209
526495.887	1454298.168
526504.552	1454140.509
526504.629	1454059.973
526508.266	1454292.254

C & G STAKING POINTS.	
NORTHING	EASTING
526513.575	1454204.572
526519.313	1454224.306
526520.795	1454269.789
526521.986	1454256.553
526522.088	1454245.800
526533.793	1454053.188
526562.637	1454044.742
526598.392	1454041.235

GENERAL NOTES

1. REMOVAL OF ALL EXIST DRAINAGE FEATURES SHALL BE COORDIANTED WITH THE TEMPORARY EROSION CONTROL PLANS AND SITE ISOLATION & DEWATERING PLANS.

XX SITE PREPARATION NOTES

1. PRESERVE & PROTECT EXIST BURIED POWER & TELECOM UTILITY.
2. PRESERVE & PROTECT EXIST SIGN & POST.
3. PRESERVE EXIST TREE.
4. PRESERVE EXIST CHANNELIZATION MARKINGS.
5. MAINTAIN HOMEOWNER ACCESS THROUGHOUT CONSTRUCTION. SEE TRAFFIC CONTROL PLANS.
6. REMOVE & DISPOSE OF EXIST CULVERT AS PART OF STRUCTURE EXCAVATION CLASS A.
7. REMOVE & SALVAGE EXIST SIGN & POST.
8. REMOVE & SALVAGE EXIST TREE FOR FUTURE USE.
9. CLEAR & GRUB TO LIMITS OF THE TABLES SHOWN. NO SIGNIFICANT TREES (6 INCHES DBH) SHALL BE REMOVED BEYOND CLEARING LIMITS. REUSE WOODY MATERIAL GENERATED THROUGH CLEARING NON-INVASIVE SPECIES AS REQUIRED IN THE SPECIAL PROVISIONS.
10. SAWCUT EX. PVMT PER SEC. 2-03. EXIST PVMT THICKNESS UNKNOWN. ESTIMATED TO BE 3 INCHES ±.

LEGEND

- LIMITS OF ASPHALT REMOVAL
- LIMITS OF CLEARING & GRUBBING (C&G)
- LIMITS OF TEMPORARY CONSTRUCTION EASEMENT

SCALE:
1" = 20' HOR
1" = N/A

DATUM
NAVD 88

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
9-29-25

ENGINEER OF RECORD

PROJECT NO.: EC214-5
FED. AID NO.: 46500R-WA #674680
DESIGNED BY: R.S.B.
DRAWN BY: R.S.B.
CHECKED BY: T.M.W.
APPROVED BY: T.M.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

SITE PREPARATION PLAN

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
9 OF 30

JAJE - September 29, 2025 - 12:50 PM - P:\SKAG\000000310400CAD\SHEETS\000 CAD-2020\010 DRAWINGS-CIVIL SHEETS\017028_SP_SO.DWG



NOTES:

1. ALL GRADING AND CHANNEL WORK BELOW THE ORDINARY HIGH WATER MARK SHALL BE ISOLATED FROM ACTIVELY FLOWING SURFACE WATERS.
2. THE TEMPORARY STREAM DIVERSION APPROACH SHOWN ON THIS SHEET IS ONE EXAMPLE OF AN ACCEPTABLE APPROACH FOR DIVERTING WATER AROUND THE WORK AREA. THE CONTRACTOR SHALL SUBMIT A TEMPORARY STREAM DIVERSION PLAN FOR REVIEW AS REQUIRED IN SECTION 8-31 OF THE STANDARD SPECIFICATIONS.
3. THE CONTRACTOR SHALL CLOSELY COORDINATE WITH THE ENGINEER REGARDING SCHEDULE AND IMPLEMENTATION OF TEMPORARY STREAM DIVERSION ELEMENTS AS REQUIRED IN SECTION 8-31 OF THE STANDARD SPECIFICATIONS AND ALLOW FOR SCHEDULING OF FISH REMOVAL. NO WORK SHALL BE PERFORMED WITHIN THE ISOLATED WORK AREA, INCLUSIVE OF DEWATERING, UNTIL FISH REMOVAL HAS BEEN COMPLETED.
4. THE CONTRACTOR IS REQUIRED TO DESIGN A CONTINGENCY TEMPORARY STREAM DIVERSION AS REQUIRED IN SECTION 8-31 OF THE SPECIAL PROVISIONS (NOT ILLUSTRATED ON THIS SHEET).
5. IN ADDITION TO TEMPORARY STREAM DIVERSION, THE CONTRACTOR IS ALSO RESPONSIBLE FOR DESIGNING AND IMPLEMENTING A TEMPORARY DEWATERING SYSTEM AS REQUIRED IN SECTION 6-20 OF THE SPECIAL PROVISIONS. THE DEWATERING PUMP SHOWN ON THIS SHEET IS INCLUDED FOR ILLUSTRATION PURPOSES ONLY; THE CONTRACTOR SHALL IMPLEMENT ELEMENTS OF THE DEWATERING SYSTEM AS DESIGNED BY THE CONTRACTOR ONCE THE DEWATERING SYSTEM WORKING DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER.

NSD CGS Natural Systems Design + Coastal Geologic Services

NIC - September 25, 2025 - 2:38 PM - P:\A_GIDAVID EVANS AND ASSOCIATES\SOUTH_OSTERMAN_CONSTRUCTION_SUPPORT_DEA-81710\DESIGN\CAD DWGS\DEWATER-PLAN.DWG

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

BY DIRECTION OF THE BOARD
COUNTY ENGINEER

PROJECT NO.: EC014-5
FED. AID NO.: 4650DP-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

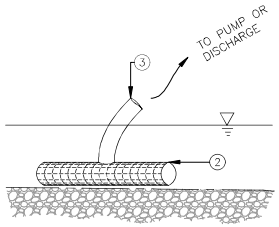
PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

SITE ISOLATION & DEWATERING

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

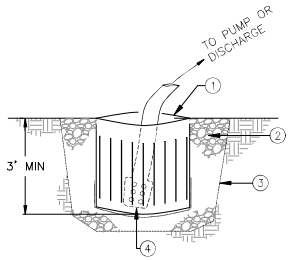
SHEET
10 OF 30



NOTES:

1. STREAM BYPASS INTAKE SHALL REST ON EXISTING STREAMBED.
2. PUMP INTAKE SHALL BE FITTED WITH FISH SCREEN MEETING APPLICABLE RCW SECTIONS (RCW 77.57.010 AND 77.57.070), AS WELL AS NMFS CRITERIA. SEE SECTION 7-06 FOR MORE INFORMATION.
3. PUMP CAPACITY SHALL BE SIZED TO CONVEY THE ENTIRETY OF STREAMFLOW WITHOUT DEWATERING THE CHANNEL OUTSIDE THE ISOLATED WORK AREA. VARIABLE PUMPING MAY BE REQUIRED. SEE PROJECT PERMITS AND SECTION 8-31 FOR MORE INFORMATION.

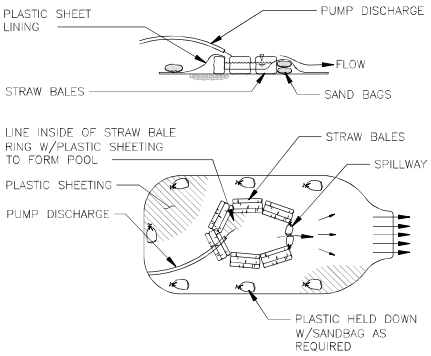
BYPASS PUMP INTAKE 1/11
NOT TO SCALE



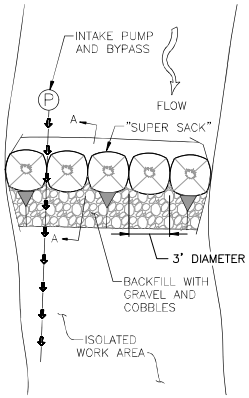
NOTES:

1. CORRUGATED PLASTIC OR METAL PIPE 36" MIN DIAMETER PERFORATED PIPE, ONE PER EACH PUMP.
2. STREAMBED SEDIMENT.
3. LIMIT OF EXCAVATION. INSTALL PIPE AND BACKFILL WITH STREAMBED SEDIMENT.
4. PUMP INTAKE SHALL BE FITTED WITH FISH SCREEN MEETING RCW 77.57.010 AND RCW 77.57.070.
5. THE INTENT OF DEWATERING PUMPS IS TO REMOVE GROUNDWATER OR SURFACE WATER WHICH SEEPS INTO THE ISOLATED WORK AREA. DEWATERING PUMPS ARE OPTIONAL; IF USED, DEWATERING PUMPS SHALL BE OPERATED IN SUCH A WAY THAT NO PORTION OF THE STREAMBED OUTSIDE THE ISOLATED WORK AREA BECOMES DEWATERED.
6. THE DEWATERING PUMP INTAKE SHOWN ON THIS SHEET IS ONE EXAMPLE OF AN ELEMENT TO BE INCLUDED IN THE DEWATERING PLAN; ADDITIONAL ELEMENTS MAY BE REQUIRED TO DEWATER THE SITE AS REQUIRED IN THE SPECIAL PROVISIONS.
7. DIVERSION OF SURFACE FLOWS AND ALL DEWATERING SHALL BE CLOSELY COORDINATED AND TIMED WITH FISH EXCLUSION EFFORTS. DIVERSION OF SURFACE FLOWS AND/OR DEWATERING SHALL NOT OCCUR UNTIL FISH EXCLUSION EFFORTS HAVE BEEN COMPLETED.

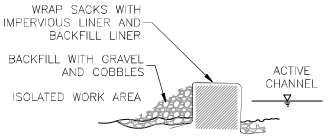
DEWATERING PUMP INTAKE 2/11
NOT TO SCALE



ENERGY DISSIPATOR 3/11
NOT TO SCALE







SECTION A-A

COFFERDAM 4/11
NOT TO SCALE

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

BENCHMARK OF RECORD

COUNTY ENGINEER

PROJECT NO.: EC014-5
FED. AID NO.: 4650DR-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

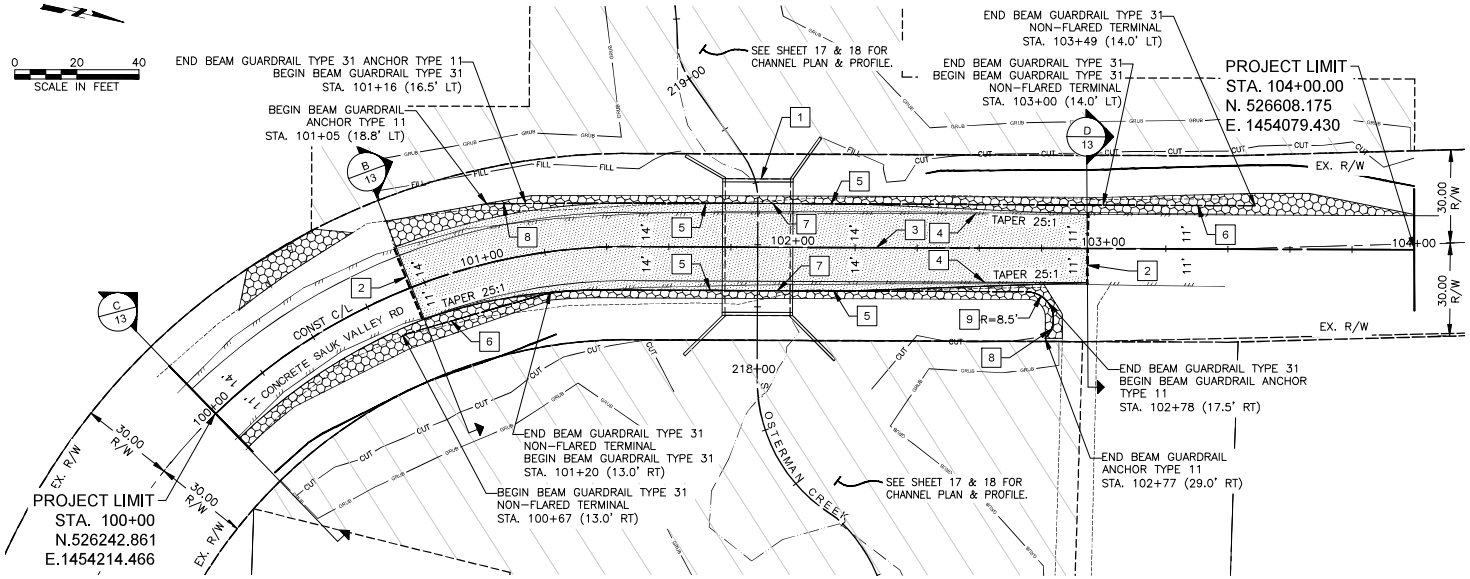
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

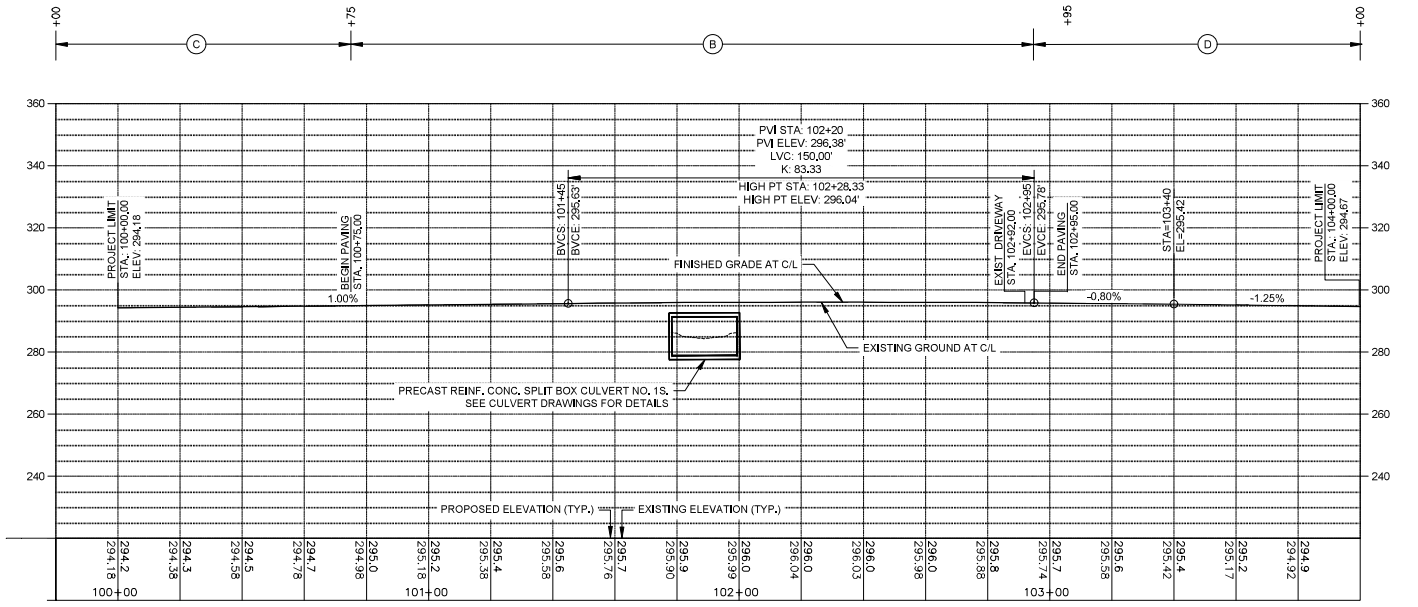
SITE ISOLATION & DEWATERING DETAILS

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 11 OF 30

NIC - September 25, 2025 - 2:38 PM - P:\A_GIDAVID EVANS AND ASSOCIATES\SOUTH_OSTERMAN_CONSTRUCTION_SUPPORT_DEA-617\DESIGN\CAD DWGS\TESC DETAILS.DWG





GENERAL SHEET NOTES

1. FOR CREEK DESIGN, SEE STREAM DRAWINGS ON SHEETS 17–26.
2. FOR ROAD SUPERELEVATION DIAGRAM, SEE SHEET 13.
3. REFER TO FINAL GEOTECH REPORT DATED 10/11/2021 FOR COMPACTION & MATERIAL REQUIREMENTS.

XX CONSTRUCTION NOTES

1. PRECAST REINF. CONC. SPLIT BOX CULVERT NO. 1S. SEE CULVERT SHEETS FOR DESIGN DETAILS.
2. PAVING LIMITS. MATCH EXIST GRADE & SEAL ALL BUTT JOINTS, SEE DETAIL E ON SHEET 13.
3. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M–20.10.
4. INSTALL PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M–20.10.
5. INSTALL BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C–20.10.
6. INSTALL BEAM GUARDRAIL TYPE 31 NON–FLARED TERMINAL PER WSDOT STD. PLAN C–22.40–11.
7. INSTALL BEAM GUARDRAIL TYPE 31 W/ BOX CULVERT GUARDRAIL STEEL POST TYPE 31 PER WSDOT STD PLAN C–20.41
8. INSTALL BEAM GUARDRAIL ANCHOR TYPE 11 TERMINAL PER WSDOT STD PLAN C–23.70–01.
9. INSTALL BEAM GUARDRAIL PLACEMENT STRONG POST TYPE 31 PER WSDOT STD PLAN C–20.44.

LEGEND

- DITCH
- LIMITS OF HMA CL 1\2 IN. PG 58H–22 SURFACING
- LIMITS OF GRAVEL SHOULDER SURFACING

DATUM
NAVD 88

SCALE:
1" = 20' HOR
1" = 20' VER

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
ENGINEER OF RECORD
10-17-25

PROJECT NO.: EC014-5
FED. AID NO.: 4600DR-WA #674680
DESIGNED BY: R.S.B.
DRAWN BY: R.S.B.
CHECKED BY: R.W.
APPROVED BY: R.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

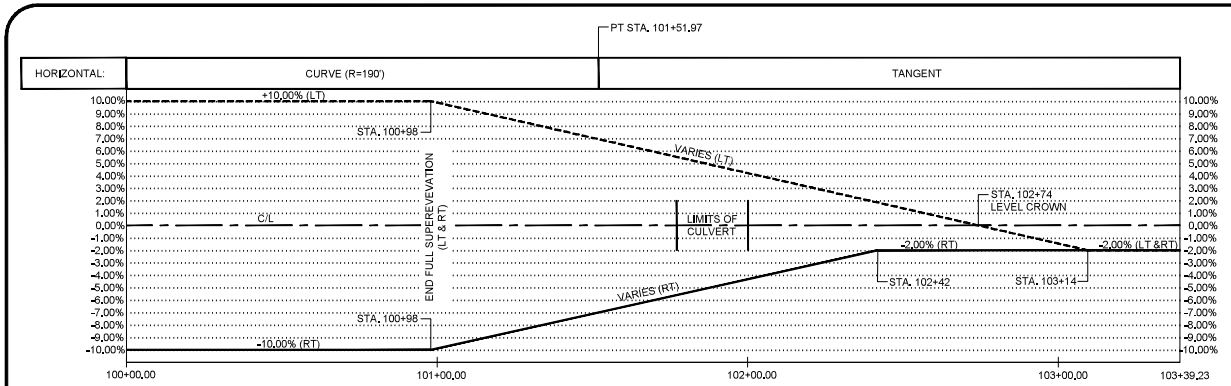
CONCRETE SAUK VALLEY ROAD FISH PASSAGE PROJECT - SOUTH OSTERMAN CREEK

ROAD PLAN & PROFILE

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

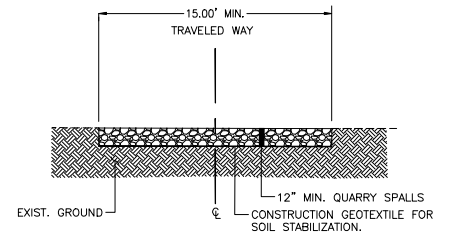
SHEET 12 OF 30

JAJE - October 17, 2025 - 12:44 PM - P:\SIS\KAG00000031\0400CAD\SHEETS\000 CAD-2020\010 DRAWING\B-CML SHEET\2017028_PP_SO.DWG

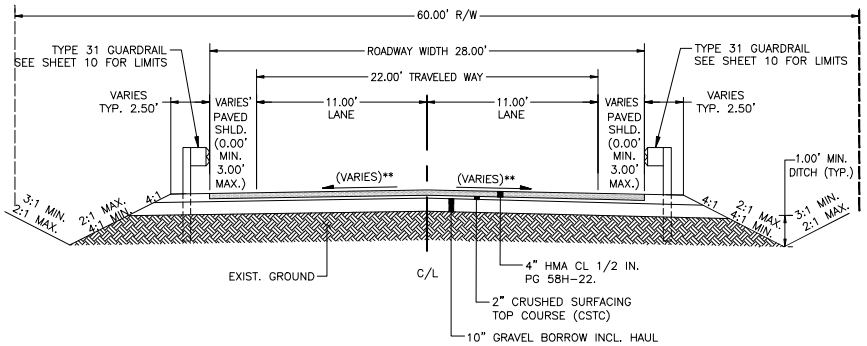


SUPEREVELVATION DIAGRAM - CONCRETE SAUK VALLEY ROAD

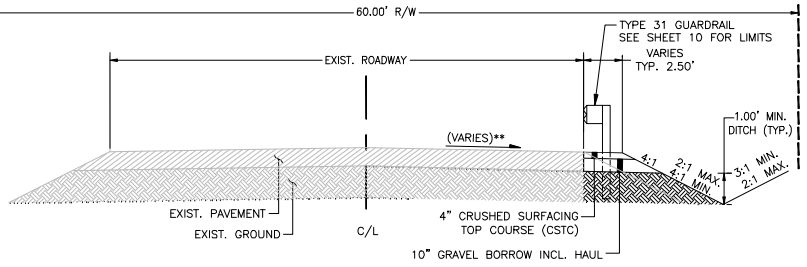
SCALE:
1" = 20' HOR
1" = 4' VER



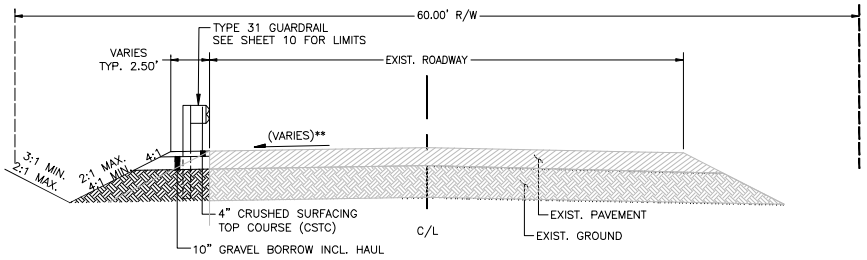
A ROADWAY SECTION FOR STABILIZED CONSTRUCTION ENTRANCE
Scale: 1" = 4'



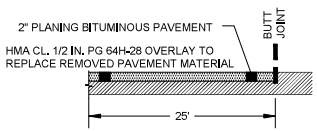
B ROAD TYPICAL SECTION FOR CONCRETE SAUK VALLEY RD (STA. 100+75.00 TO STA. 102+95.00)
Scale: 1" = 4'
** REFER TO SUPERELEVATION DIAGRAM ABOVE



C ROAD TYPICAL SECTION FOR CONCRETE SAUK VALLEY RD (STA. 100+00.00 TO STA. 100+75.00)
Scale: 1" = 4'
** REFER TO SUPERELEVATION DIAGRAM ABOVE



D ROAD TYPICAL SECTION FOR CONCRETE SAUK VALLEY RD (STA. 102+95.00 TO STA. 104+00.00)
Scale: 1" = 4'
** REFER TO SUPERELEVATION DIAGRAM ABOVE



E LONGITUDINAL BUTT-JOINT PLANING DETAIL
NTS

DATUM
NAVD 88

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
STATE OF WASHINGTON
ENGINEER OF RECORD
9-29-25

PROJECT NO.: EC0114-S
FED. AID NO.: 4600DR-WA #674680
DESIGNED BY: R.S.B.
DRAWN BY: R.S.B.
CHECKED BY: R.W.
APPROVED BY: R.W.

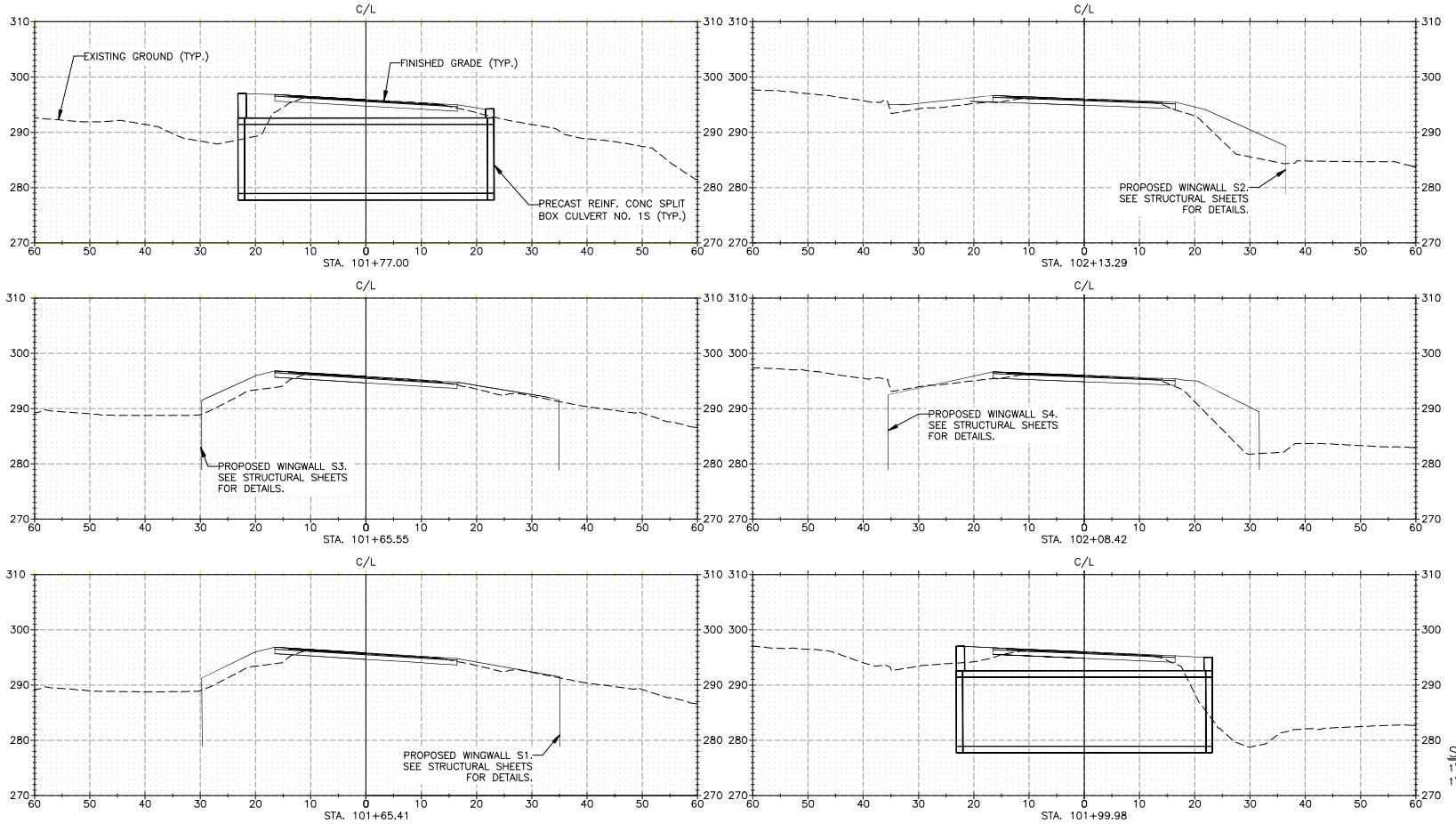
PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

SUPERELEVATION DIAGRAM & TYPICAL SECTIONS

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
13 OF 30



SCALE:
1" = 10' HOR
1" = 10' VER

DATUM
NAVD 88

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
STATE OF WASHINGTON
RYAN E. WHITTAKER
21431
REGISTERED PROFESSIONAL ENGINEER
9-29-25

ENGINEER OF RECORD

PROJECT NO.: EC214-5
FED. AID NO.: 4650DR-WA #674680
DESIGNED BY: R.S.B.
DRAWN BY: R.S.B.
CHECKED BY: R.W.
APPROVED BY: R.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

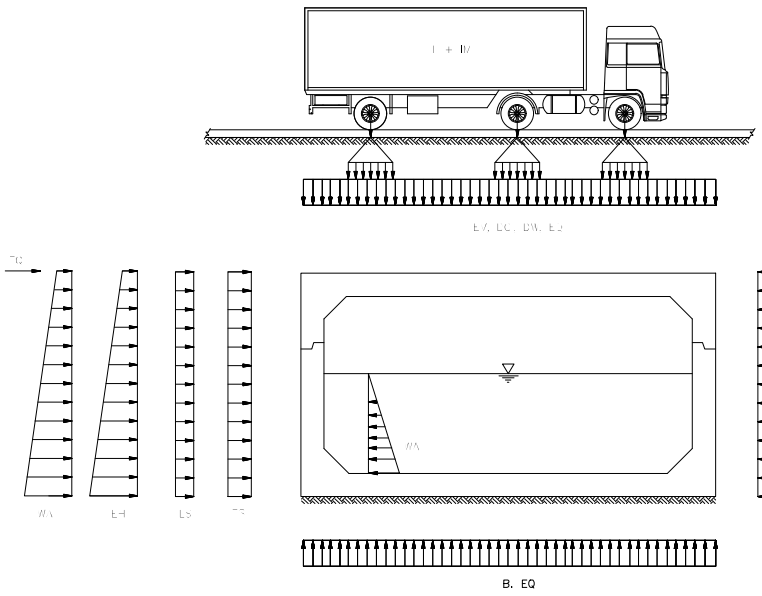
ROAD X-SECTIONS

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
14 OF 30

STRUCTURAL NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WSDOT'S MOST CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION."
2. THE CULVERTS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO'S LRFD BRIDGE DESIGN SPECIFICATIONS 10TH EDITION 2024.
3. THE SEISMIC PEAK GROUND ACCELERATION OF 0.26 AND SITE CLASS E SHALL BE USED FOR THE SEISMIC DESIGN.
4. LIVE LOAD (LL) AASHTO HL-93 + IM AS SHOWN.
5. THE PRECAST CONCRETE SHALL BE CLASS 5000, 6000 OR 7000 SELF CONSOLIDATING CONCRETE (SCC). OTHER CONCRETE SHALL BE CLASS 4000.
6. STEEL REINFORCING SHALL CONFORM TO ASTM A615 GRADE 60.
7. SEGMENTAL PRECAST CONCRETE BOX CULVERT UNITS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE ASTM C 786 AND WSDOT STANDARD SPECIFICATION SECTION 6-02.3(20). ALL JOINTS SHALL BE TONGUE AND GROOVE AND SEALED WITH JOINT SEALANT PER ASTM C990 AND WRAPPED WITH EXTERNAL SEALING BAND PER ASTM C877.
8. ALL STEEL PLATES AND SHAPES SHALL BE ASTM A36 OR ASTM A 992. ALL BOLTS, NUTS AN WASHERS (UNLESS NOTED OTHERWISE) SHALL BE ASTM A 307 AND COMPLY WITH WSDOT STANDARD SPECIFICATION 9-16.3(4) AND RESIN BONDED ANCHORS SHALL BE ASTM A 193 GRADE 87, OR ASTM A449. ALL STEEL PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111 AFTER FABRICATION. BOLTS AND HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASHTO M 232.
9. UNLESS OTHERWISE SHOWN IN THE PLANS, CONCRETE COVER MEASURED FROM THE FACE OF CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE 2" AT THE TOP OF THE ROOF DECK, 1½" AT THE BOTTOM OF THE ROOF DECK, 3" AT THE BOTTOM OF FOOTINGS, AND 2" AT ALL OTHER LOCATIONS.
10. THE BACKFILL AT BOTH SIDES OF THE CULVERT TO BE PLACED IN IN ACCORDANCE TO WSDOT STANDARD SPECIFICATION 2-09.3(1)E. THE MAXIMUM FIELD HEIGHT DIFFERENCE MEASURED FROM SIDE TO SIDE SHALL BE NO MORE 2'-0". THE MAXIMUM FIELD HEIGHT DIFFERENCE MEASURED FROM SIDE TO SIDE SHALL NOT BE MORE THAN 2'-0".
11. A FOUNDATION MATERIAL LAYER SHALL BE PLACED CONSISTING OF A MINIMUM OF 12 INCHES CRUSHED ROCK PRODUCT OR PERMEABLE BALLAST PER WSDOT STANDARD SPECIFICATION 9.03.9(2) AND CONFORMING TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
12. ADDITIONAL OVER-EXCAVATION OF 1 TO 2 FEET MAY BE REQUIRED TO PROPERLY SUPPORT THE PLANNED STRUCTURES IF EXCESSIVELY SOFT, ORGANIC, OR OTHERWISE UNSUITABLE SOILS ARE ENCOUNTERED AT THE SUBGRADE ELEVATION.
13. CONTRACTOR MAY ENCOUNTER GROUNDWATER DURING CULVERT EXCAVATION OF AND SHALL PROVIDE DEWATERING OF EXCAVATIONS AND PROPERLY DISPOSE OF THIS WATER PER THE SPECIAL PROVISIONS.
14. ALL GEOTECHNICAL RECOMMENDATIONS ARE INCLUDED IN THE REPORT BY GEOENGINEERS DATED 10/11/2021 MADE PART OF THESE CONTRACT DOCUMENTS.



LOADING DIAGRAM

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
TIMOTHY A. SMITH — 21363 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON
ENGINEER OF RECORD

PROJECT NO.: EC0154-5
FED. AID NO.: 46500R-WA #674680
DESIGNED BY: P.S.S.
CHECKED BY: T.M.W.
DRAWN BY: D.J.J.
APPROVED BY: T.M.W.

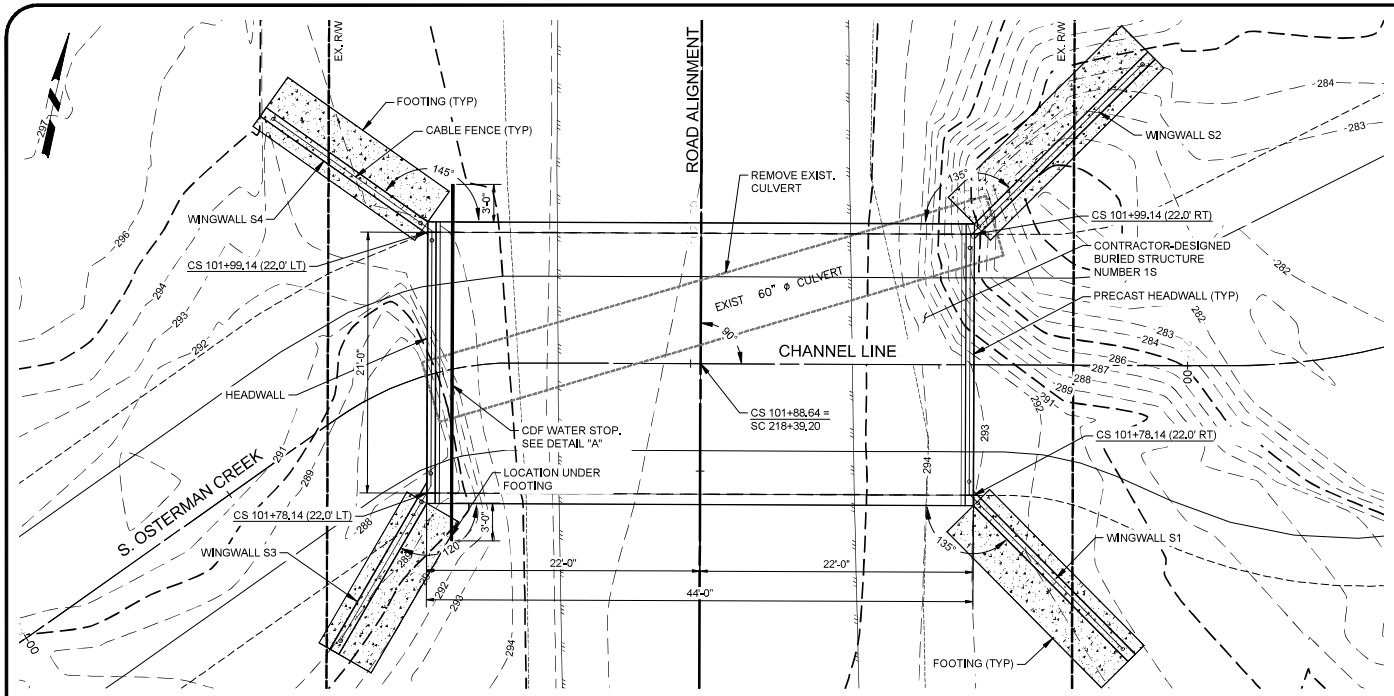
PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

STRUCTURAL NOTES

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
15 OF 30



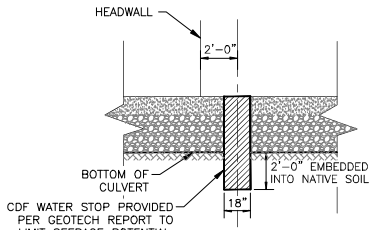
CULVERT PLAN

GENERAL SHEET NOTES

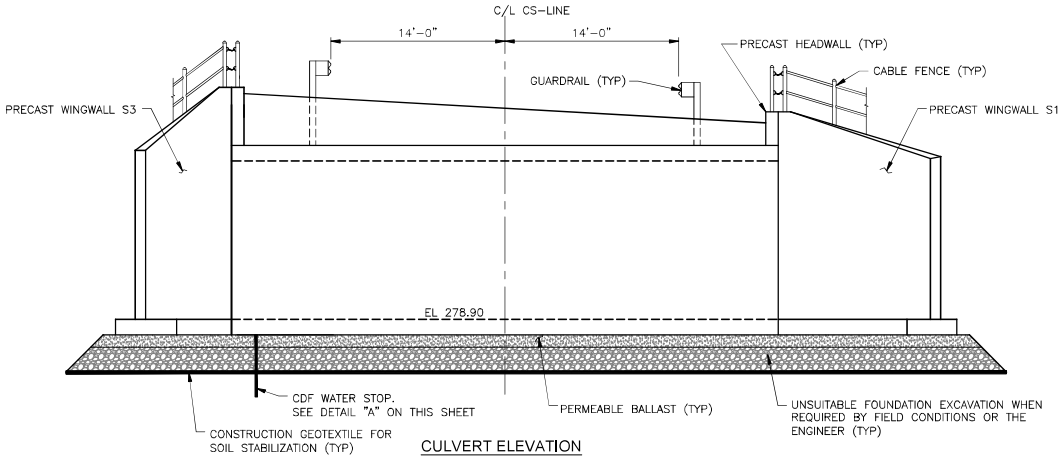
1. CABLE FENCE MOUNTED ON TOP OF ALL HEADWALLS AND WING WALLS TO BE CONSTRUCTED PER WSDOT STANDARD DETAILS 8.1-A6-2, 8.1-A6-3, 8.1-A6-4, & 8.1-A6-5.

LEGEND

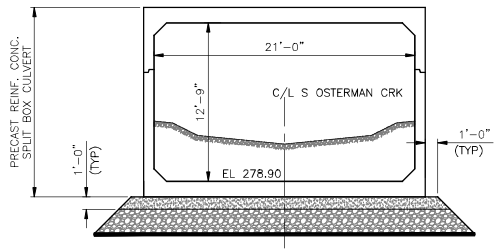
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PRECAST WINGWALL
- PERMEABLE BALLAST
- UNSUITABLE FOUNDATION EXCAVATION INCL. HAUL



DETAIL "A"
N.T.S.



CULVERT ELEVATION
LOOKING AHEAD ON STATION



TYPICAL SECTION

SCALE:
1" = 5' HOR
1" = N/A

DATUM
NAVD 88

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
ENGINEER OF RECORD
STATE OF WASHINGTON — TIMOTHY A. SMITH — 23583 — REGISTERED PROFESSIONAL ENGINEER — 12/31/25

PROJECT NO.: EC0114-5
FED. AID NO.: 4630DR-WA #674680
DESIGNED BY: P.S.S. | DRAWN BY: D.J.J.
CHECKED BY: T.M.W. | APPROVED BY: T.M.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

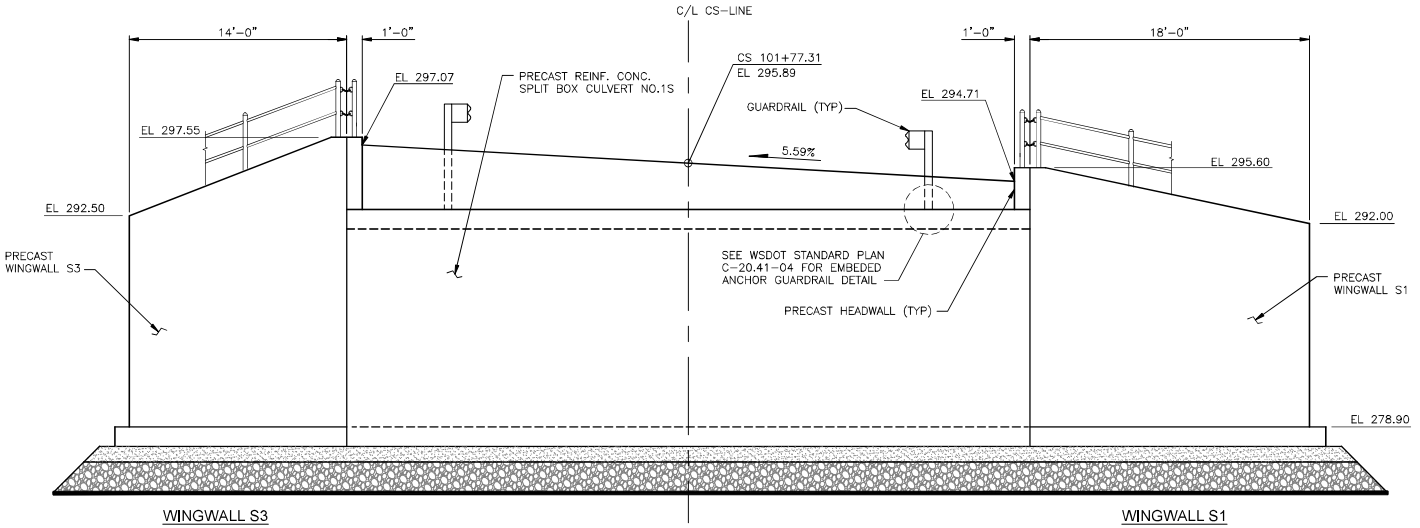
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CULVERT PLAN & ELEVATION

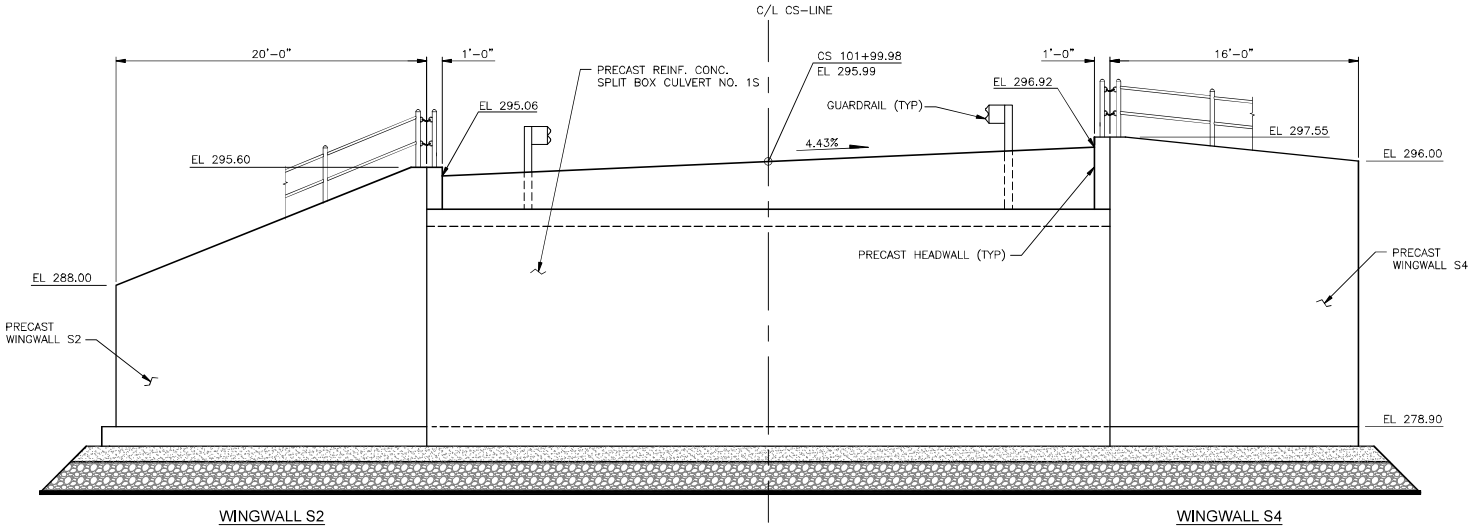
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
16 OF 30

JAJE - September 29, 2025 - 12:54 PM - P:\SKAGIT\000000031\0400CAD\SHEETS\000 CAD-2020\010 DRAWING\C-STRUCTURAL SHEET\2017028_CULV PLN_SO.DWG



WINGWALL LAYOUT
LOOKING AHEAD ON STATION



WINGWALL LAYOUT
LOOKING BACK ON STATION

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY
PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER
PROFESSIONAL ENGINEER
STATE OF WASHINGTON
TIMOTHY A. SMITH
25583
REGISTERED
11/3/25

ENGINEER OF RECORD

PROJECT NO.: EC014-5
FED. AID NO.: 4600DR-WA #674680
DESIGNED BY: P.S.S. | DRAWN BY: D.J.J.
CHECKED BY: T.M.W. | APPROVED BY: T.M.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

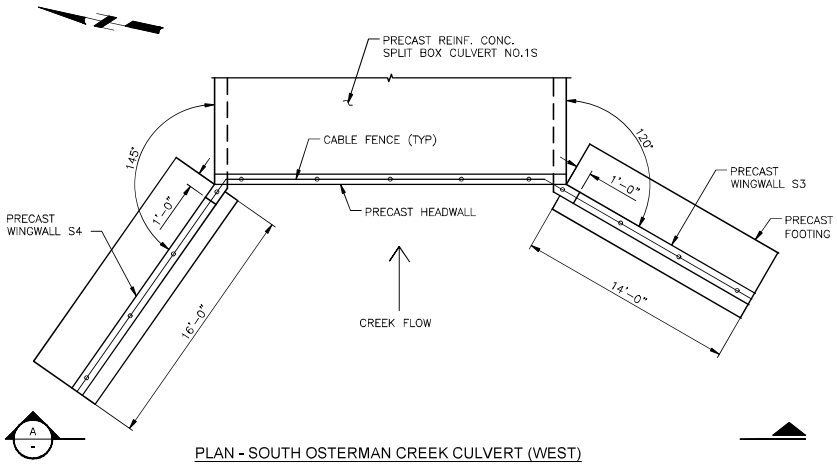
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CULVERT WINGWALL LAYOUTS

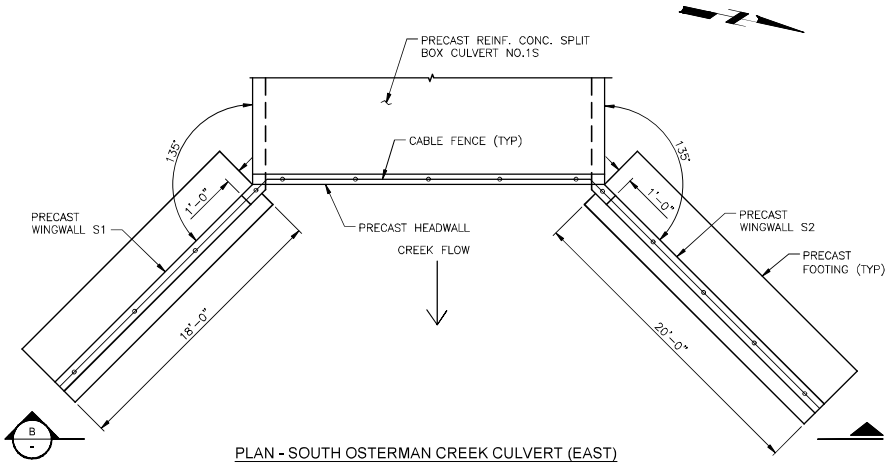
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
17 OF 30

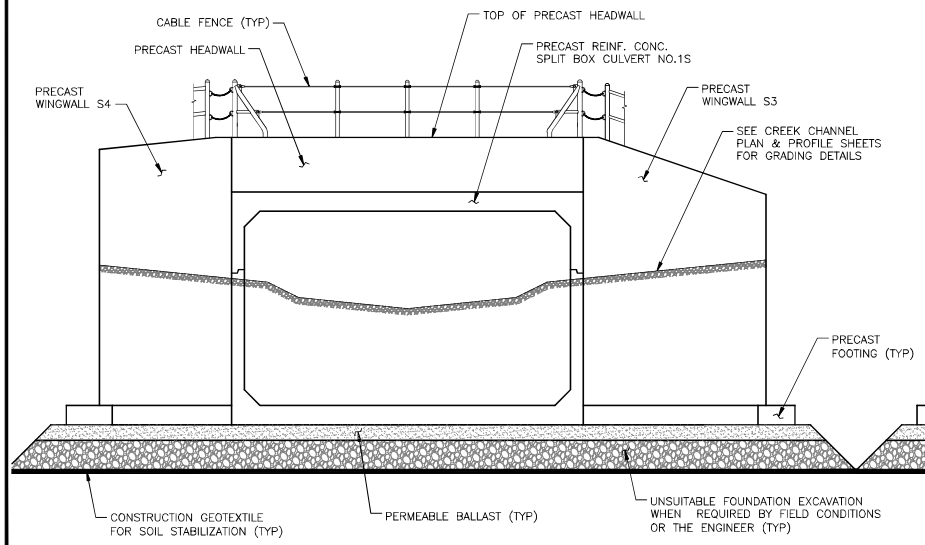
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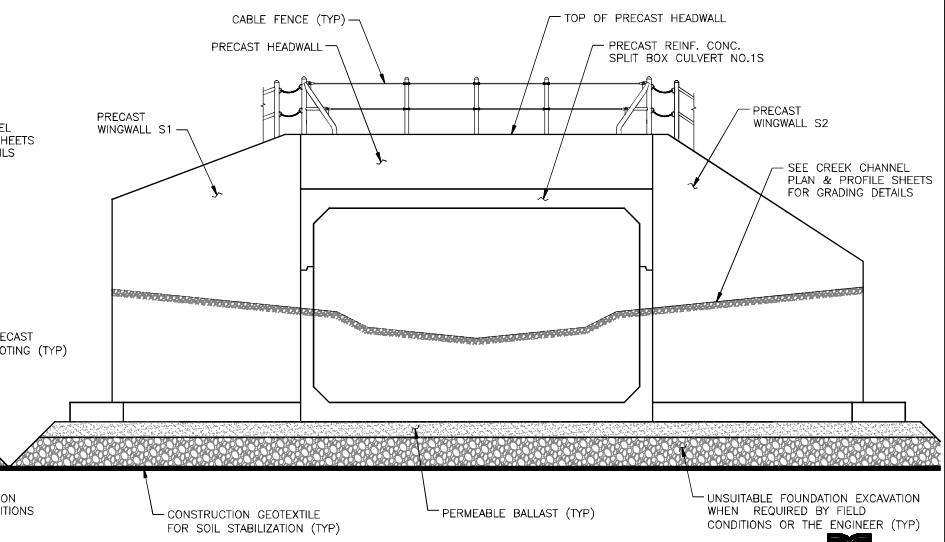
PLAN - SOUTH OSTERMAN CREEK CULVERT (WEST)



PLAN - SOUTH OSTERMAN CREEK CULVERT (EAST)



VIEW A - SOUTH OSTERMAN CREEK CULVERT (WEST)



VIEW B - SOUTH OSTERMAN CREEK CULVERT (EAST)

DAVID EVANS AND ASSOCIATES INC.

SKAGIT COUNTY
PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

DESIGN ENGINEER

PROFESSIONAL ENGINEER
TIMOTHY A. SMITH
STATE OF WASHINGTON
22583
REGISTERED

10/2025

ENGINEER OF RECORD

PROJECT NO.: EC214-5
FED. AID NO.: 46SODR-WA #674680
DESIGNED BY: P.S.S. | DRAWN BY: D.J.J.
CHECKED BY: T.M.W. | APPROVED BY: T.M.W.

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

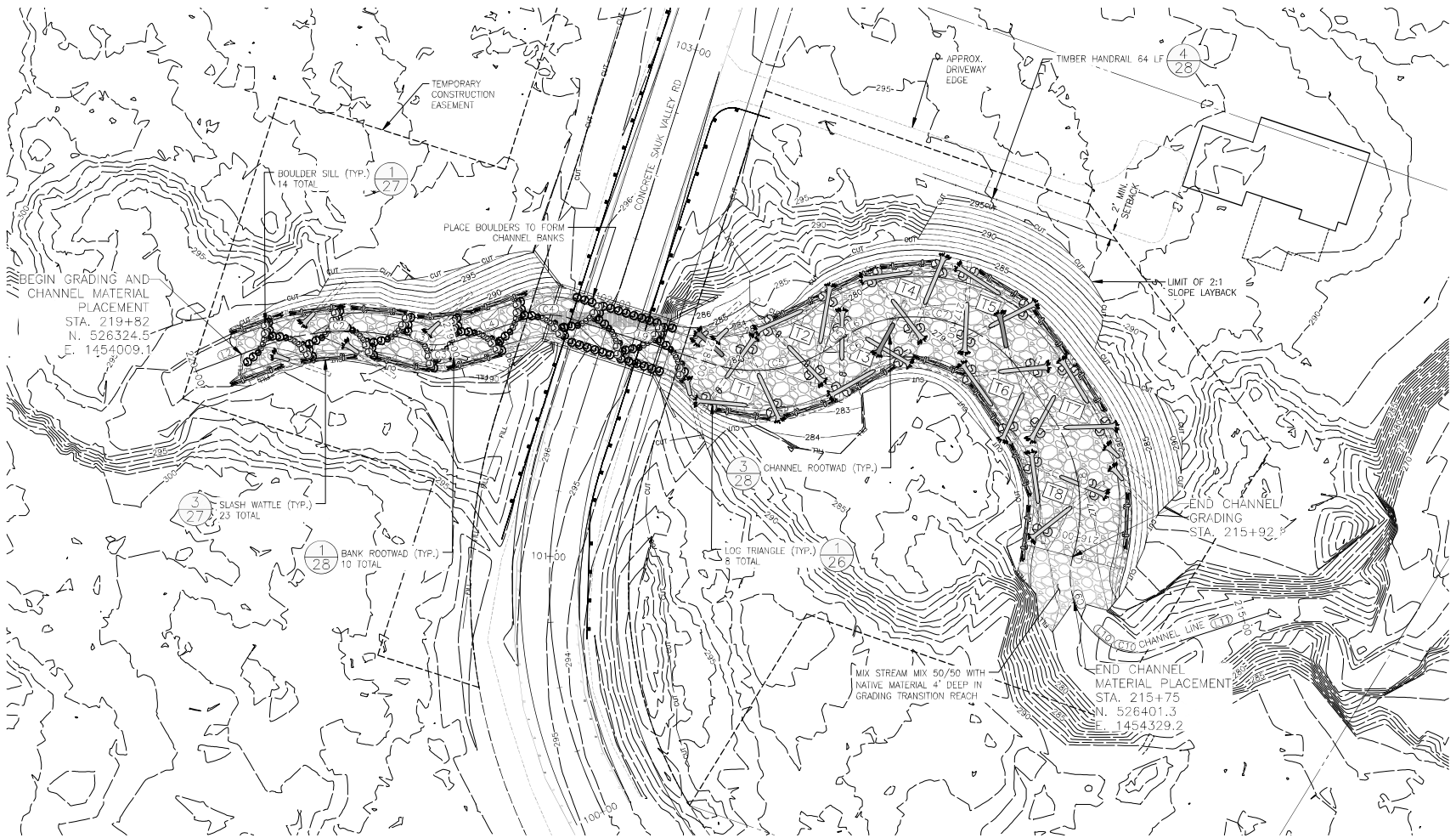
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CULVERT HEADWALL LAYOUTS

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET
18 OF 30

JAJE - September 29, 2025 - 12:56 PM - P:\SKAG\0000003\10\400\CAD\SHEETS\000 CAD-2020\010 DRAWING\C-STRUCTURAL SHEET\2017028_CULV DETS_SO.DWG



CHANNEL PLAN

NOTES:

1. CHANNEL PLAN PRESENTED ON THIS SHEET REPRESENTS NEATLINE ELEVATIONS FOR CONSTRUCTION. ACTUAL FINISH GRADE WILL INCLUDE SIGNIFICANT VARIABILITY DUE TO LOGS, RACKING, AND STREAMBED BOULDERS AND COBBLES.
2. SEE SHEET 21 FOR TYPICAL CHANNEL SECTIONS AND STREAMBED MIX.
3. SEE SHEETS 26 THROUGH 28 FOR CHANNEL STRUCTURE DETAILS.
4. LOCATION OF DRIVEWAY IS APPROXIMATE. STAKEOUT AND APPROVAL OF GRADING LIMITS AND TIMBER HANDRAIL LOCATION IS REQUIRED PRIOR TO STARTING WORK.

20' 10' 0 20' 40'
SCALE: 1"=20'-0"

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

ENGINEER OF RECORD
JON HILSTAD
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
COUNTY ENGINEER

PROJECT NO.: EC014-5
FED. AID NO.: 46500PR-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

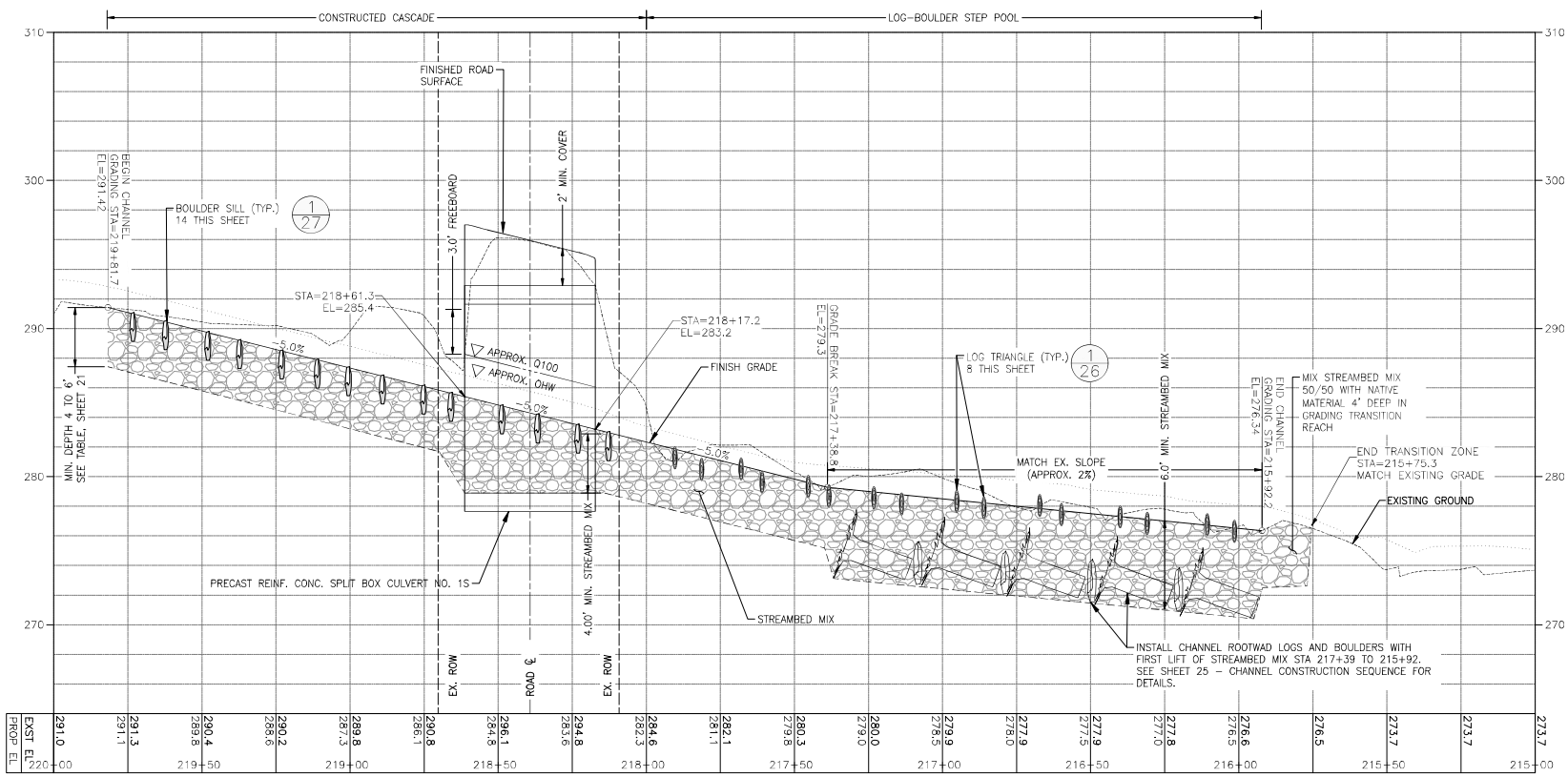
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL PLAN

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 19 OF 30

LAURA - September 25, 2025 - 2:40 PM - P:\VL_GIDAVID EVANS AND ASSOCIATES\SOUTH_OSTERMAN_CONSTRUCTION_SUPPORT_DEA-017\DESIGN\CAD DWGS\PC_PLAN_PROF.DWG



CHANNEL LINE PROFILE

SCALE: 1"=20' HORIZ., 1"=4' VERT.

NOTES:

1. CHANNEL PROFILE PRESENTED ON THIS SHEET REPRESENT NEATLINE ELEVATIONS FOR CONSTRUCTION. ACTUAL FINISH GRADE WILL INCLUDE SIGNIFICANT VARIABILITY DUE TO LOGS, RACKING, AND STREAMBED BOULDERS AND COBBLES.
2. SEE SHEET 21 FOR TYPICAL CHANNEL SECTIONS AND STREAMBED MIX.
3. SEE SHEETS 26 THROUGH 28 FOR CHANNEL STRUCTURE DETAILS.

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

REVISIONS | NO. | DATE

BENCHMARK OF RECORD
DNR MONUMENT
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
COUNTY ENGINEER

PROJECT NO.: EC0145
FED. AID NO.: 4650DP-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL PROFILE

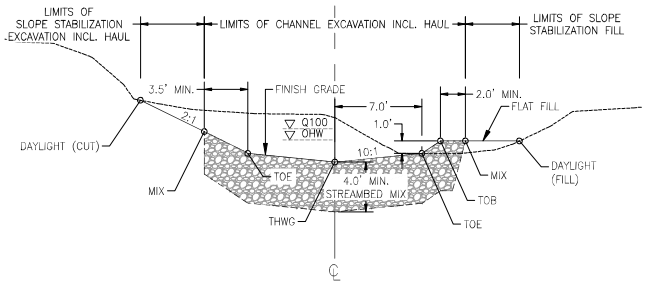
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 20 OF 30

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CHANNEL STAKEOUT

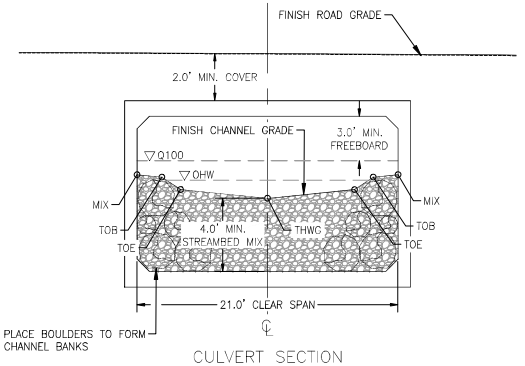
STATION	LEFT									℄		RIGHT								
	DAYLIGHT			MIX		TOB		TOE		THWG		TOE		TOB		MIX		DAYLIGHT		
	OFFSET	ELEV.	C/F	OFFSET	ELEV.	OFFSET	ELEV.	OFFSET	ELEV.	OFFSET	ELEV.	OFFSET	ELEV.	OFFSET	ELEV.	OFFSET	ELEV.	OFFSET	ELEV.	C/F
219+81.8	10.7 L	293.2	CUT	10.5 L	293.1	8.5 L	293.1	7.0 L	292.1	0.0	291.4	7.0 R	292.1	8.5 R	293.1	10.5 R	293.1	12.4 R	293.1	FILL
219+75	11.3 L	293.2	CUT	10.5 L	292.8	8.5 L	292.8	7.0 L	291.8	0.0	291.1	7.0 R	291.8	8.5 R	292.8	10.5 R	292.8	11.6 R	292.8	FILL
219+50	14.1 L	293.3	CUT	10.5 L	291.5	8.5 L	291.5	7.0 L	290.5	0.0	289.8	7.0 R	290.5	8.5 R	291.5	10.5 R	292.5	10.6 R	292.6	CUT
219+25	20.8 R	296.4	CUT	10.5 L	291.3	8.5 L	290.3	7.0 L	289.3	0.0	288.6	7.0 R	289.3	8.5 R	290.3	10.5 R	291.3	12.1 R	292.1	CUT
219+00	26.3 R	298.0	CUT	10.5 L	290.0	8.5 L	289.0	7.0 L	288.0	0.0	287.3	7.0 R	288.0	8.5 R	289.0	10.5 R	290.0	13.7 R	290.0	FILL
218+75	25.9 L	296.5	CUT	10.5 L	288.8	8.5 L	287.8	7.0 L	286.8	0.0	286.1	7.0 R	286.8	8.5 R	287.8	10.5 R	288.8	12.4 R	289.7	FILL
CULVERT 0+00				10.5 L	288.3	7.7 L	287.0	6.2 L	286.0	1.0	285.4	8.5 R	286.3	10.1 R	287.3	10.5 R	287.5			
218+50				10.5 L	286.7	8.5 L	286.5	7.0 L	285.5	0.0	284.8	7.0 R	285.5	8.5 R	286.5	10.5 R	286.7			
218+25				10.5 L	285.5	8.5 L	285.3	7.0 L	284.3	0.0	283.6	7.0 R	284.3	8.5 R	285.3	10.5 R	285.5			
218+17.2				10.5 L	285.1	8.5 L	284.9	7.0 L	283.9	0.0	283.2	7.0 R	283.9	8.5 R	284.9	10.5 R	285.1			
218+00	30.3 L	287.1	FILL	13.7 L	284.6	11.7 L	284.2	9.0 L	283.2	0.0	282.3	11.4 R	283.4	12.9 R	284.5	14.9 R	285.5	25.4 R	290.8	CUT
217+88	34.2 L	286.5	FILL	17.9 L	284.1	15.9 L	283.7	13.3 L	282.6	0.0	281.7	14.8 R	282.8	16.7 R	284.0	18.7 R	285.0	22.8 R	287.0	CUT
217+75	20.0 L	284.0	FILL	19.5 L	283.7	17.5 L	283.3	15.0 L	282.1	0.0	281.1	15.0 R	282.1	17.5 R	283.3	19.5 R	283.5	25.1 R	284.1	FILL
217+60	21.3 L	284.5	CUT	19.5 L	283.6	17.5 L	282.6	15.0 L	281.3	0.0	280.3	15.0 R	281.3	17.5 R	282.6	19.5 R	282.8	36.5 R	284.0	FILL
217+50	22.4 L	284.5	CUT	19.5 L	283.1	17.5 L	282.1	15.0 L	280.8	0.0	279.8	15.0 R	280.8	17.5 R	282.1	19.5 R	282.3	21.2 R	283.9	CUT
217+38.8	25.8 L	285.7	CUT	19.5 L	282.5	17.5 L	281.5	15.0 L	280.3	0.0	279.3	15.0 R	280.3	17.5 R	281.5	19.5 R	282.5	24.0 R	284.8	CUT
217+25	28.5 L	286.8	CUT	19.5 L	282.3	17.5 L	281.3	15.0 L	280.0	0.0	279.0	15.0 R	280.0	17.5 R	281.3	19.5 R	282.3	23.9 R	284.5	CUT
217+15	29.3 L	287.0	CUT	19.5 L	282.1	17.5 L	281.1	15.0 L	279.8	0.0	278.8	15.0 R	279.8	17.5 R	281.1	19.5 R	282.1	23.8 R	284.2	CUT
217+00	46.1 L	295.1	CUT	19.5 L	281.8	17.5 L	280.8	15.0 L	279.5	0.0	278.5	15.0 R	279.5	17.5 R	280.8	19.5 R	281.8	23.9 R	283.9	CUT
216+75	42.6 L	292.8	CUT	19.5 L	281.3	17.5 L	280.3	15.0 L	279.0	0.0	278.0	15.0 R	279.0	17.5 R	280.3	19.5 R	281.3	25.2 R	284.1	CUT
216+50	29.0 L	285.5	CUT	19.5 L	280.8	17.5 L	279.8	15.0 L	278.5	0.0	277.5	15.0 R	278.5	17.5 R	279.8	19.5 R	280.8	23.4 R	282.7	CUT
216+25	41.4 L	291.2	CUT	19.5 L	280.3	17.5 L	279.3	15.0 L	278.0	0.0	277.0	15.0 R	278.0	17.5 R	279.3	19.5 R	280.3	23.7 R	282.4	CUT
216+00	25.7 L	282.9	CUT	19.5 L	279.8	17.5 L	278.8	15.0 L	277.5	0.0	276.5	15.0 R	277.5	17.5 R	278.8	19.5 R	279.8	21.5 R	280.8	CUT
215+92.4	23.7 L	281.7	CUT	19.5 L	279.6	17.5 L	278.6	15.0 L	277.4	0.0	276.4	15.0 R	277.4	17.5 R	278.6	19.5 R	279.6	25.4 R	280.5	FILL



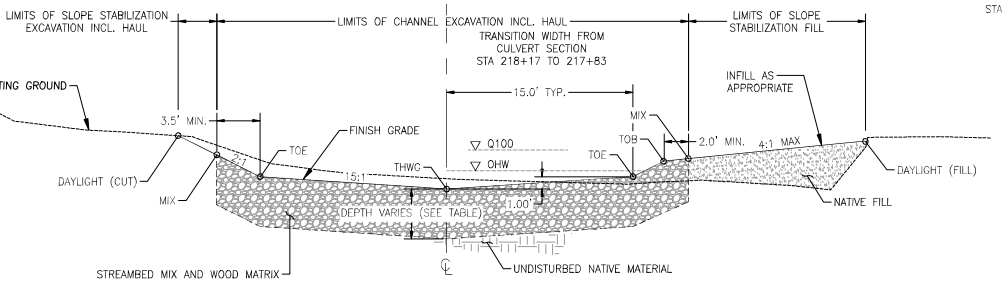
UPSTREAM CHANNEL SECTION
STA 219+82 TO 218+61 SCALE
SCALE 1" = 5'

STREAMBED MIX	
PERCENT PASSING	PARTICLE SIZE (IN)
100	48
84	26–30
50	7–11
16	0.75–1.5
10	0.25–0.5
5 MIN.	NO. 200 SIEVE

STREAMBED MIX DEPTH	
STATION RANGE	DEPTH
219+82 TO 218+61	4'–0"
218+61 TO 218+17	4'–0" MIN.
218+17 TO 217+39	4'–0"
217+39 TO 215+92	6'–0"
215+92 TO 215+75	⅝ MIX TO 4'–0" DEPTH



CULVERT SECTION
STA 218+61 TO 218+17
SCALE 1" = 5'



DOWNSTREAM CHANNEL SECTION
STA 218+17 TO 215+89
SCALE 1" = 5'

NOTES:

1. SLASH MATERIAL SHALL BE INCORPORATED INTO STREAMBED MIX DURING CHANNEL CONSTRUCTION. SLASH MATERIAL SHALL BE APPROXIMATELY 5–10% OF THE CONSTRUCTED STREAMBED MIX BY VOLUME.
2. PLACE STREAMBED MIX IN LIFTS OF NO MORE THAN 2 FEET. SEAL EACH LIFT BY WASHING IN FINE MATERIALS AND STREAMBED SAND, REFER TO SECTION 8-30 OF THE SPECIAL PROVISIONS.
3. INDIVIDUAL PARTICLES GREATER THAN APPROXIMATELY 24 INCHES SHALL BE USED PRIMARILY TO FORM CHANNEL BANKS; PLACE AS DIRECTED BY THE ENGINEER.
4. SECTION VIEWS AND STAKEOUT ARE ORIENTED LOOKING DOWNSTREAM IN THE CHANNEL AND DOWN-STATION RELATIVE TO THE ALIGNMENT.
5. WOOD NOT SHOWN FOR CLARITY.

CHANNEL STAKEOUT POINTS	
THWG	LOWEST POINT OF CHANNEL SECTION, ON CENTERLINE
TOE	TOE OF CHANNEL BANK
TOB	TOP OF CHANNEL BANK
MIX	LIMIT OF STREAMBED MIX PLACEMENT
DAYLIGHT (CUT/FILL)	LIMIT OF EXCAVATION OR FILL PLACEMENT

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

REVISIONS | NO. | DATE

ENGINEER OF RECORD — COUNTY ENGINEER

PROJECT NO.: EC014-5
FED. AID NO.: 4650DR-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR: CONCRETE, WA
S 14 T 34 N R 9 E

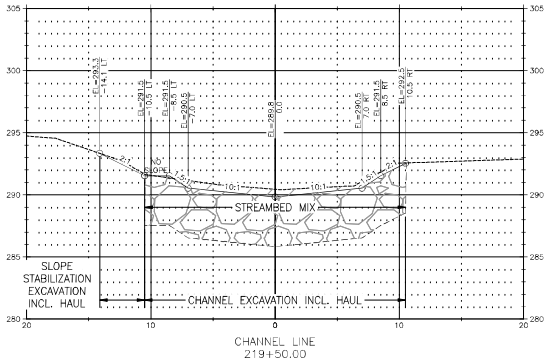
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

TYPICAL CHANNEL SECTIONS

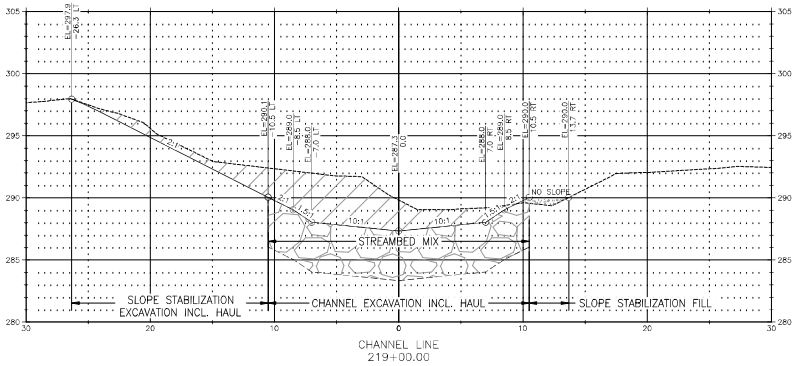
1 INCH SCALE BAR ADJUST SCALE ACCORDINGLY

SHEET 21 OF 30

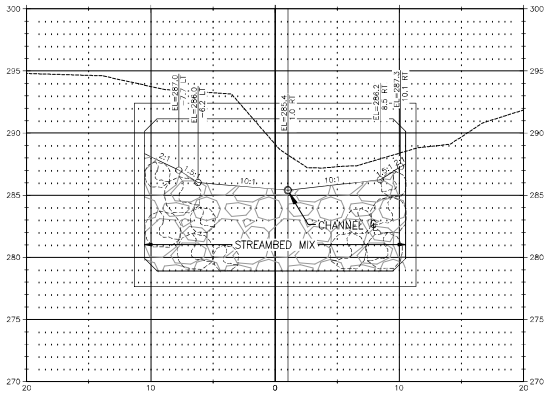
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CHANNEL LINE
219+50.00



CHANNEL LINE
219+00.00



CULVERT
0+00.00

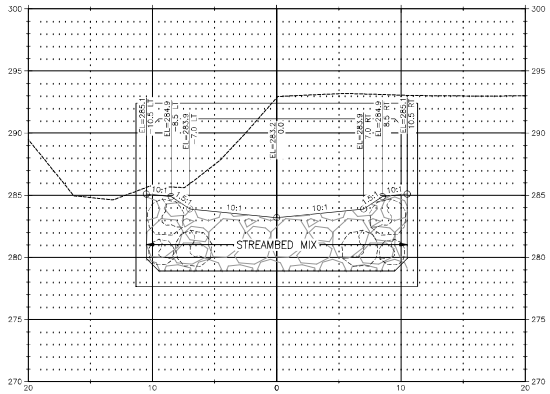
*NOTE: SECTION SHOWN ON CULVERT ℄ AT UPSTREAM FACE, NOT ALONG CHANNEL ℄

NOTES
1. ALL SECTION VIEWS ARE ORIENTED LOOKING DOWNSTREAM IN THE CHANNEL AND DOWN-STATION RELATIVE TO THE ALIGNMENT.
2. WOOD NOT SHOWN FOR CLARITY.

EXCAVATION

NATIVE FILL

STREAMBED MIX



CULVERT
218+17.20

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

BENCHMARK OF RECORD

COUNTY ENGINEER

PROJECT NO.: EC014-5
FED. AID NO.: 4650DP-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

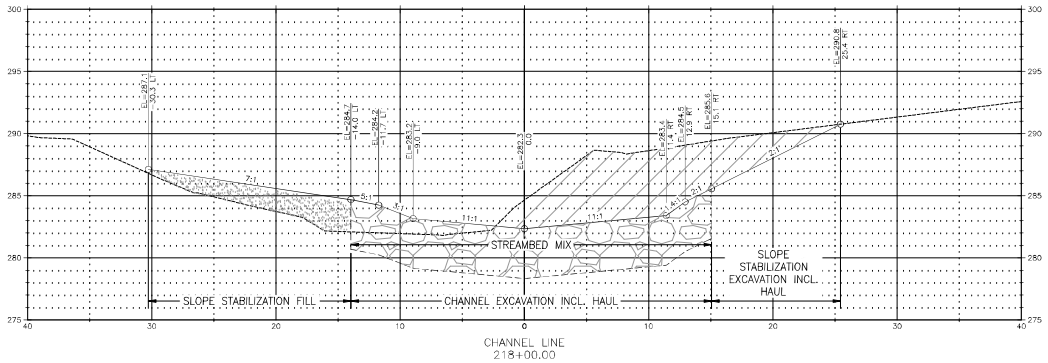
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL SECTIONS (1 OF 3)

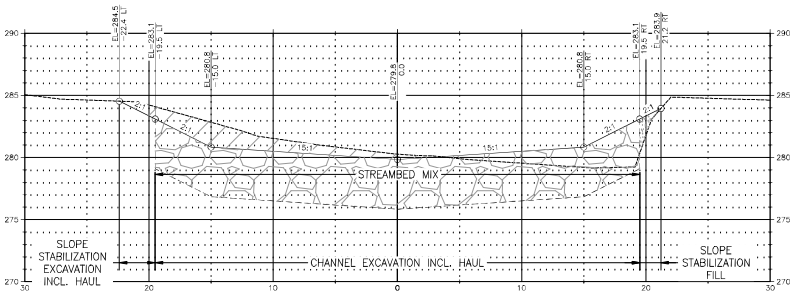
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 22 OF 30

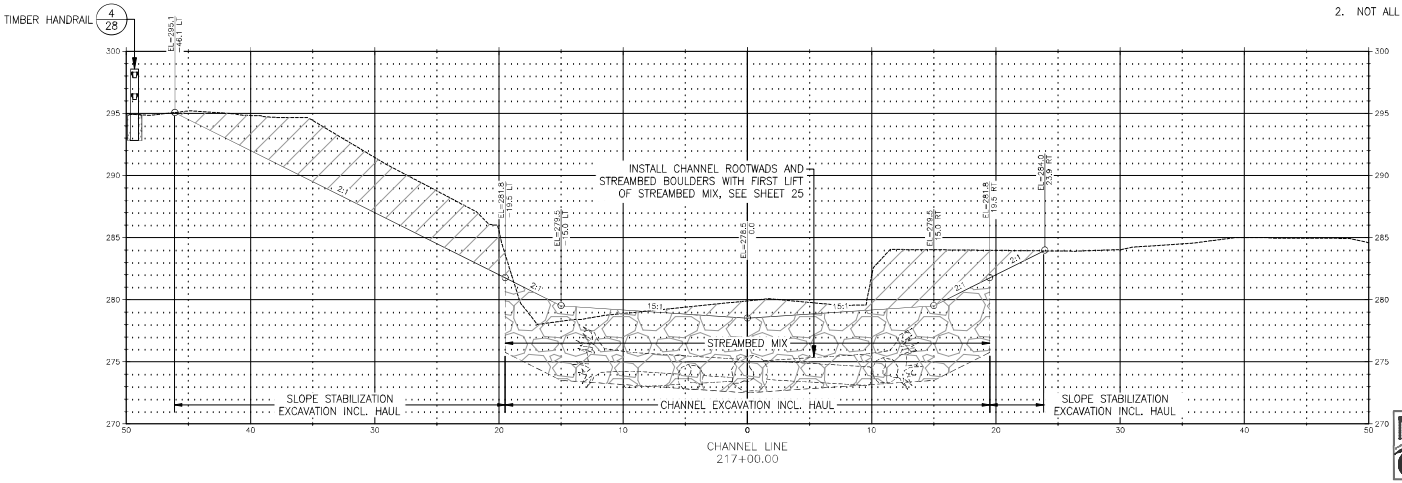
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CHANNEL LINE
218+00.00



CHANNEL LINE
217+50.00



CHANNEL LINE
217+00.00

NOTES
1. ALL SECTION VIEWS ARE ORIENTED LOOKING DOWNSTREAM IN THE CHANNEL AND DOWN-STATION RELATIVE TO THE ALIGNMENT.
2. NOT ALL WOOD IS SHOWN FOR CLARITY.

EXCAVATION
NATIVE FILL
STREAMBED MIX

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

ENGINEER OF RECORD
JON RISTOW
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
COUNTY ENGINEER

PROJECT NO.: EC014-5
FED. AID NO.: 4650DP-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

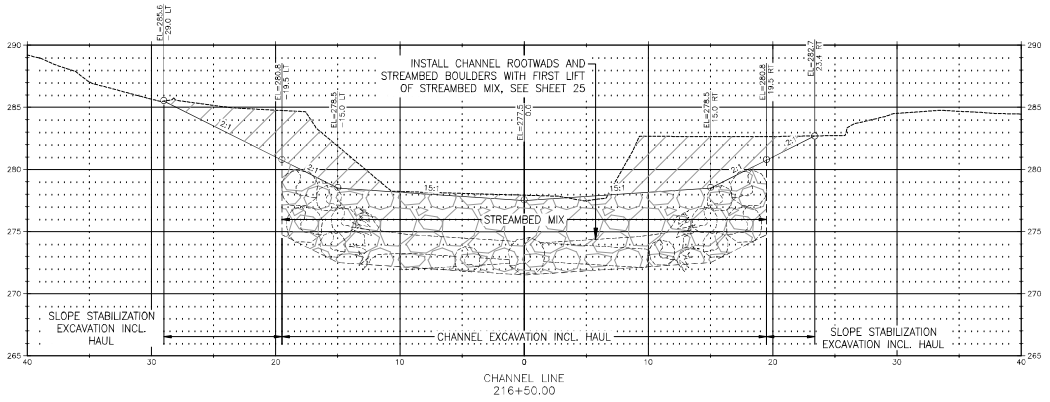
PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

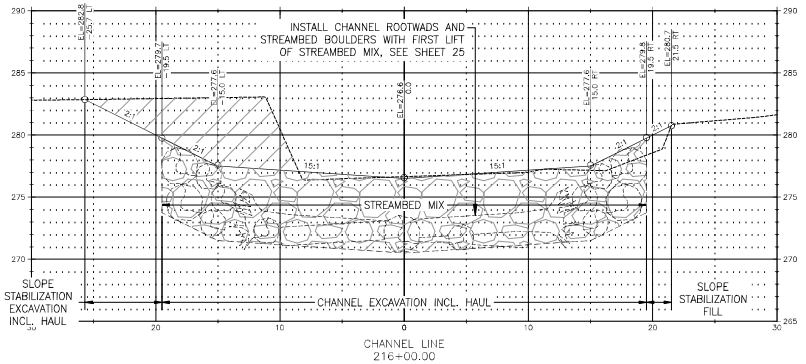
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL SECTIONS (2 OF 3)

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 23 OF 30





NOTES
1. ALL SECTION VIEWS ARE ORIENTED LOOKING DOWNSTREAM IN THE CHANNEL AND DOWN-STATION RELATIVE TO THE ALIGNMENT.
2. NOT ALL WOOD IS SHOWN FOR CLARITY.

EXCAVATION

NATIVE FILL

STREAMBED MIX

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

ENGINEER OF RECORD
JON RIDGWAY
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
COUNTY ENGINEER

PROJECT NO.: EC014-5
FED. AID NO.: 4650DP-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL SECTIONS (3 OF 3)

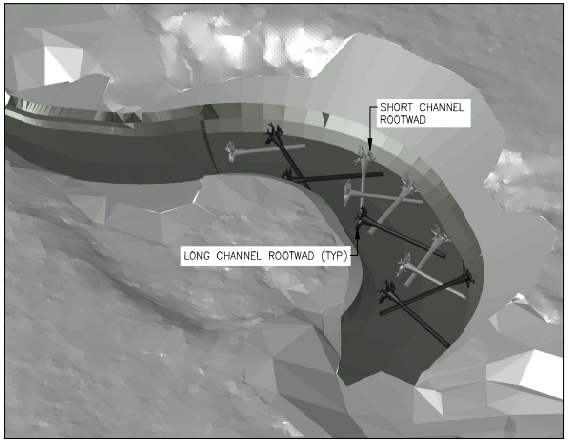
1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 24 OF 30

LAURA - September 25, 2025 - 2:41 PM - P:\AL_GIDAVID EVANS AND ASSOCIATES\SOUTH_OSTERMAN_CONSTRUCTION_SUPPORT_DEA-017\DESIGN\CAD DWGS\PC_SECTIONS.DWG

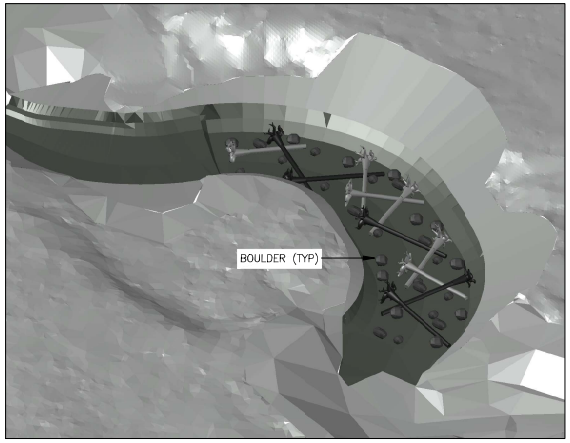
NOTES

1. THE CHANNEL CONSTRUCTION SEQUENCE SHOWN ON THIS SHEET IS A RECOMMENDATION ONLY. ALTERNATE SEQUENCES ARE ACCEPTABLE PROVIDED ALL PROJECT ELEMENTS SHOWN ON THESE PLANS AS DESCRIBED IN THE SPECIAL PROVISIONS.



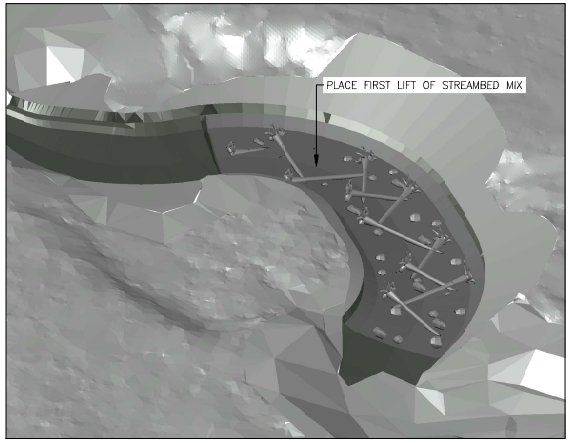
STEP 1

1. EXCAVATE CHANNEL TO STREAMBED FOUNDATION.
2. PLACE FIVE (5) LONG CHANNEL ROOTWADS AND SIX (6) SHORT CHANNEL ROOTWADS.



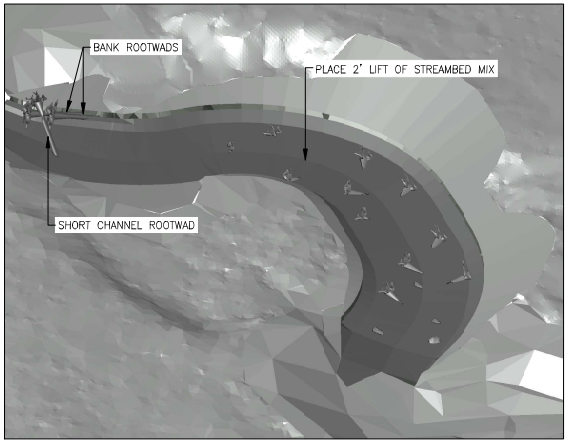
STEP 2

1. PLACE APPROXIMATELY 40 TYPE 3 AND TYPE 4 STREAMBED BOULDERS ON STREAMBED FOUNDATION AS DIRECTED BY ENGINEER.



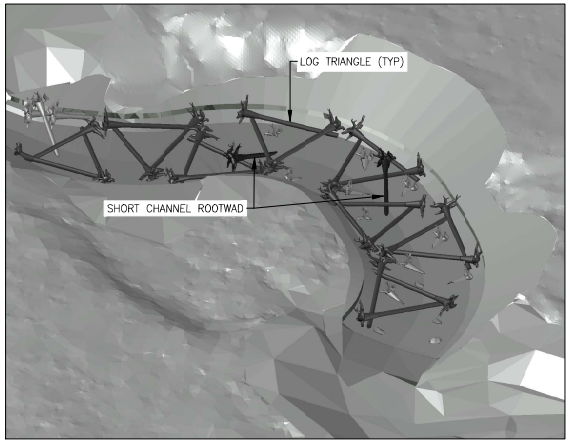
STEP 3

1. PLACE 2' LIFT OF STREAMBED MIX IN CHANNEL, INCORPORATING SLASH MATERIAL.
2. SEAL LIFT BY WASHING IN STREAMBED SAND.



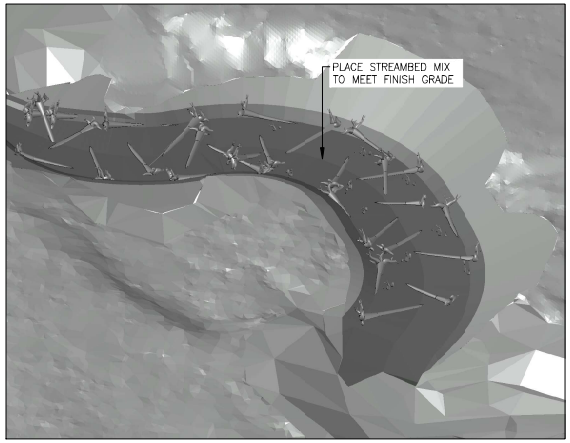
STEP 4

1. INSTALL TWO (2) BANK ROOTWADS.
2. PLACE ONE (1) SHORT CHANNEL ROOTWAD.
3. PLACE 2' LIFT OF STREAMBED MIX ALONG FULL LENGTH OF CHANNEL BED, INCORPORATING SLASH MATERIAL.
4. SEAL LIFT BY WASHING IN STREAMBED SAND.



STEP 5

1. CONSTRUCT LOG TRIANGLES PER DETAIL ON SHEET 26 (RACKING MATERIAL, PILES, AND BOULDER COLLARS NOT SHOWN FOR CLARITY).
2. INSTALL TWO (2) SHORT CHANNEL ROOTWADS.



STEP 6

1. PLACE FINAL LIFT OF STREAMBED MIX, INCORPORATING SLASH MATERIAL, TO MEET FINISH GRADE.
2. SEAL FINAL LIFT BY WASHING IN STREAMBED SAND.
3. INSTALL REMAINING SLASH WATTLES AND BANK ROOTWADS (NOT SHOWN FOR CLARITY) AS REQUIRED IN PLANS.

CHANNEL CONSTRUCTION SEQUENCE

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

ENGINEER OF RECORD
COUNTY ENGINEER

PROJECT NO.: EC0114-S
FED. AID NO.: 4650DP-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

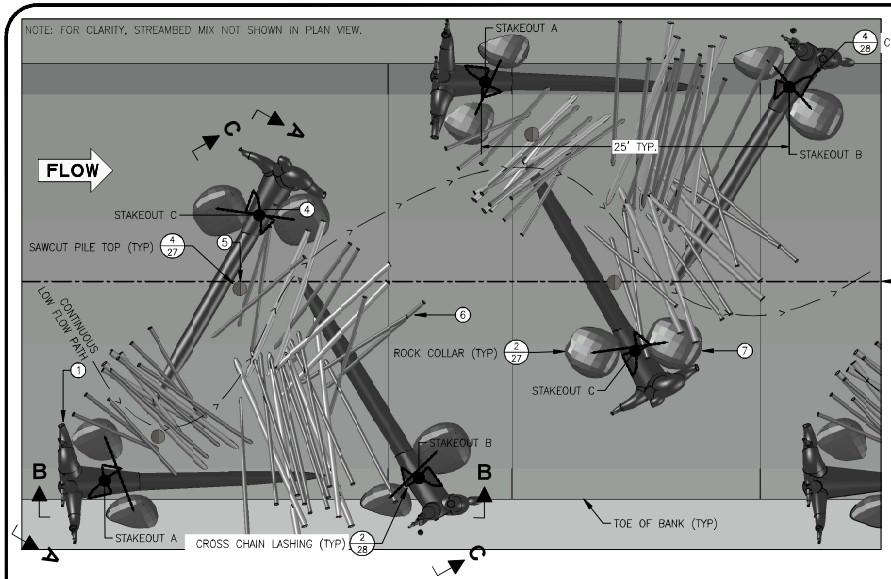
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL CONSTRUCTION SEQUENCE

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

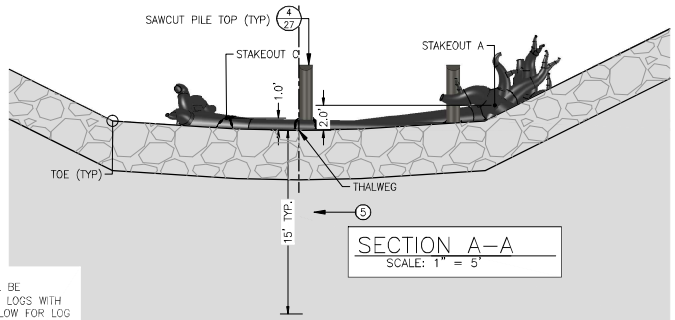
SHEET 25 OF 30

NIC - September 25, 2025 - 2:42 PM - P:\A_GIDAVID EVANS AND ASSOCIATES\SOUTH_OSTERMAN_CONSTRUCTION_SUPPORT_DEA-617\DESIGN\CAD DWGS\CHNL-TOE-DTL.DWG



LOG TRIANGLE PLAN
SCALE: 1" = 5'

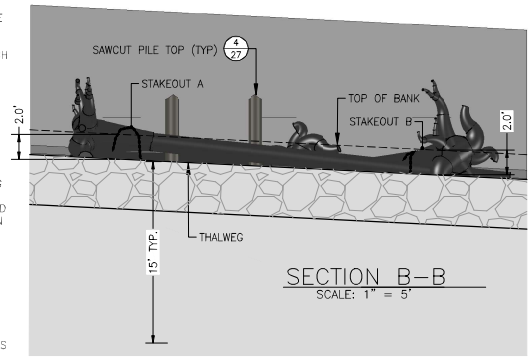
NOTE: FOR CLARITY, RACKING MATERIALS NOT SHOWN IN SECTION VIEWS.



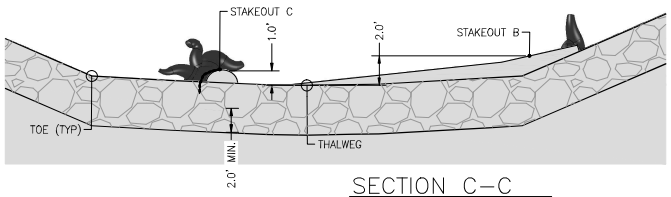
SECTION A–A
SCALE: 1" = 5'

LOG TRIANGLE NOTES

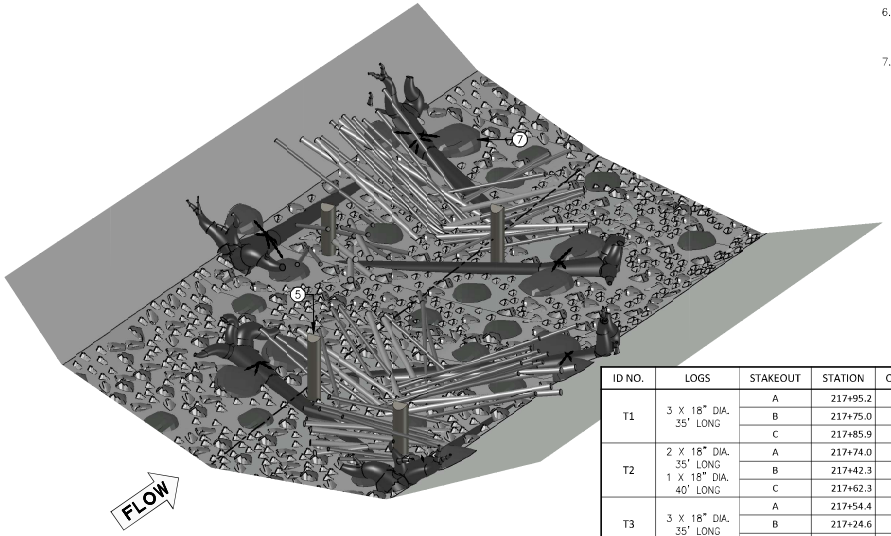
1. LOG TRIANGLE STRUCTURES SHALL BE CONSTRUCTED OF THREE 18" DIA. LOGS WITH INTACT ROOTWADS. SEE TABLE BELOW FOR LOG LENGTH.
2. MEMBER LOGS SHALL BE JOINED BY CROSS CHAIN LASHING AT OVERLAPPING CORNERS. SEE DETAIL SHEET 28.
3. STRUCTURES SHALL BE CONSTRUCTED TO MATCH STAKEOUT LOCATIONS AND ELEVATIONS AT TOP OF CROSSING LOGS, AS INDICATED ON TABLE.
4. DRIVE TWO 14" DIA. 25' LONG (PE–25) VERTICAL PILES AS SHOWN.
5. RACKING MATERIAL (4–10" DIA. X 10–30' LOGS) AND SLASH MATERIAL SHALL BE INTERTWINED WITH LOGS AS STRUCTURES ARE ASSEMBLED. PLACE 15–20 PIECES OF RACKING AND 5 CY OF SLASH PER TRIANGLE. RACKING MATERIAL SHALL BE COVERED AND VOIDS FILLED WITH STREAMBED MIX TO NEATLINES SHOWN ON THESE PLANS.
6. INSTALL ROCK COLLAR WITH TWO TYPE 4 STREAMBED BOULDERS AT EACH CORNER OF STRUCTURE. SEE DETAIL ON SHEET 27.
7. ROCK COLLARS SHALL BE PLACED SUCH THAT THE CONNECTING CHAIN IS TAUT AND IN CONTACT WITH LOGS FORMING TRIANGLE; CONTRACTOR SHALL COUNTERSINK BOULDERS AS NECESSARY TO ACHIEVE INSTALLATION IN THIS MANNER.



SECTION B–B
SCALE: 1" = 5'



SECTION C–C
SCALE: 1" = 5'



LOG TRIANGLE – ISOMETRIC
NTS

ID NO.	LOGS	STAKEOUT	STATION	OFFSET	ELEVATION
T1	3 X 18" DIA. 35' LONG	A	217+95.2	13.1 R	283.7
		B	217+75.0	12.4 R	282.3
		C	217+85.9	10.1 L	282.4
T2	2 X 18" DIA. 35' LONG 1 X 18" DIA. 40' LONG	A	217+74.0	14.8 L	282.6
		B	217+42.3	13.1 L	281.1
		C	217+62.3	7.1 R	281.3
T3	3 X 18" DIA. 35' LONG	A	217+54.4	15.2 R	281.9
		B	217+24.6	13.3 R	280.5
		C	217+42.4	5.8 L	280.7
T4	3 X 18" DIA. 35' LONG	A	217+27.6	16.0 L	280.6
		B	217+08.4	14.5 L	280.1
		C	217+19.7	7.6 R	279.8

ID NO.	LOGS	STAKEOUT	STATION	OFFSET	ELEVATION
T5	3 X 18" DIA. 35' LONG	A	217+00.0	16.0 L	280.0
		B	216+80.7	14.4 L	279.5
		C	216+92.1	7.6 R	279.2
T6	3 X 18" DIA. 35' LONG	A	216+82.0	14.2 R	279.3
		B	216+53.0	12.6 R	278.8
		C	216+68.1	7.4 L	278.5
T7	3 X 18" DIA. 35' LONG	A	216+58.6	15.3 L	279.1
		B	216+36.4	14.8 L	278.6
		C	216+47.7	7.2 R	278.3
T8	3 X 18" DIA. 35' LONG	A	216+33.7	13.4 R	278.6
		B	216+01.4	13.1 R	278.1
		C	216+17.7	6.7 L	277.8

LOG TRIANGLE DETAIL 1/26
SCALE: AS NOTED

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

BENCHMARK OF RECORD
COUNTY ENGINEER

PROJECT NO.: EC0114-S
FED. AID NO.: 4650DP-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR: CONCRETE, WA
S 14 T 34 N R 9 E

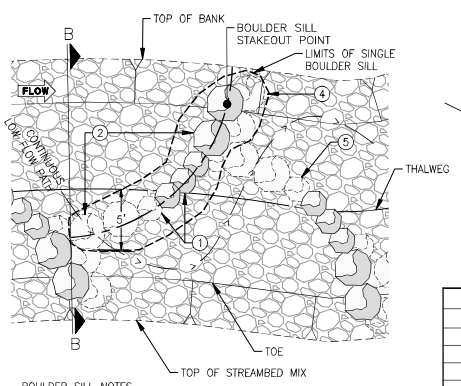
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

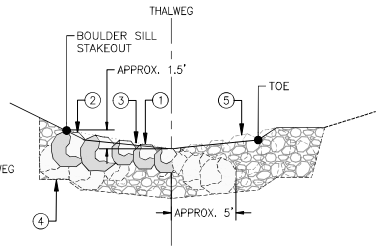
CHANNEL STRUCTURE DETAILS (1 OF 3)

1 INCH SCALE BAR ADJUST SCALE ACCORDINGLY

SHEET 26 OF 30

NIC - September 25, 2025 - 2:43 PM - P:\A_GIDAVID EVANS AND ASSOCIATES\SOUTH_OSTERMAN_CONSTRUCTION_SUPPORT_DEA-817\DESIGN\CAD DWGS\LOG_CELL_DTL.DWG





SECTION B–B

BOULDER SILL NOTES

1. TYPE TWO STREAMBED BOULDER. FIVE PER STRUCTURE.
2. TYPE THREE STREAMBED BOULDER. SIX PER STRUCTURE.
3. DASHED LINES INDICATE TOP OF BOULDER IS BURIED BENEATH FINISHED STREAMBED ELEVATION.
4. SET SILL BOULDERS AT SLOPE FROM TOP OF BANK TO THALWEG AND BELOW. INFILL BEHIND SILLS WITH STREAMBED MIX.
5. BANKWARD ¾ OF EACH SILL INCLUDES TWO (2) TYPE THREE AND ONE (1) TYPE TWO STREAMBED BOULDERS PLACED BELOW AND DOWNSTREAM OF THE SILL BOULDERS.
6. DOWNSTREAM BOULDER SILL. BOULDER SILLS ALTERNATE RIGHT/LEFT ORIENTATION.
7. STREAMBED BOULDERS SHALL BE PLACED IN CONTACT WITH ONE ANOTHER AND WITH THE DOWNSTREAM BOULDER SILL.

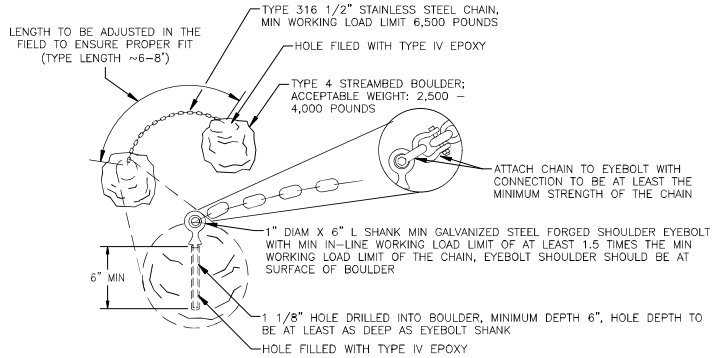
BOULDER SILL STAKEOUT

SILL	STATION	OFFSET	ELEV.
1	219+70.0	8.5 L	292.5
2	219+56.7	8.5 R	291.9
3	219+45.0	8.5 L	291.3
4	219+31.4	8.5 R	290.6
5	219+20.0	8.5 L	290.0
6	219+08.0	8.5 R	289.4
7	218+97.2	8.5 L	288.9
8	218+85.0	8.5 R	288.3
9	218+72.3	8.5 L	287.7
10	218+55.9	8.5 R	286.8
11	218+45.0	8.5 L	286.3
12	218+32.3	8.5 R	285.7
13	218+20.2	8.5 L	285.1
14	218+08.0	9.5 R	284.6

BOULDER SILL MATERIALS

MATERIAL	COUNT
TYPE TWO STREAMBED BOULDER	5
TYPE THREE STREAMBED BOULDER	6

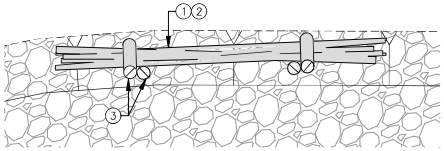
BOULDER SILL DETAIL 1/27
SCALE: 1" = 5'



ROCK COLLAR NOTES

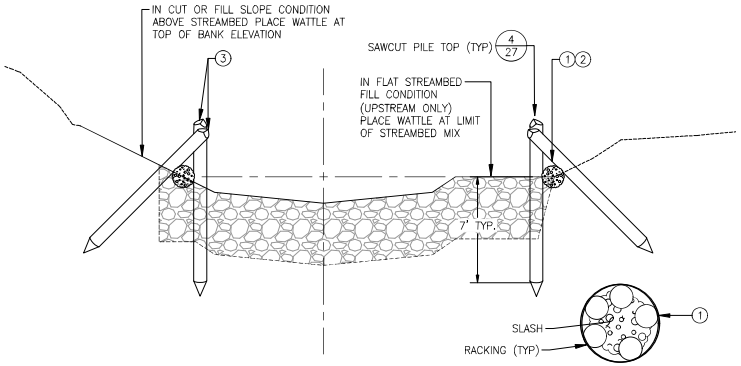
1. THOROUGHLY CLEAN DRILL HOLE AND ALL BONDING SURFACES PRIOR TO APPLICATION OF EPOXY.
2. THE DRILL HOLE SHALL BE FILLED WITH RESIN SUCH THAT WHEN THE EYEBOLT IS INSERTED, A SMALL AMOUNT OF RESIN WILL OOZE OUT OF THE TOP OF THE HOLE. ONCE THE EYEBOLT IS INSERTED IN THE HOLE, IT SHALL NOT BE DISTURBED UNTIL RESIN HAS CURED.
3. BOULDER DIAMETER AVERAGE DIMENSIONS SHOULD TYPICALLY RANGE FROM 3–4 FEET; INDIVIDUAL BOULDER WEIGHT SHALL BE BETWEEN 2,500–4,000 POUNDS.
4. BOULDERS USED TO CONSTRUCT A COLLAR SHALL BE PAIRED AS CLOSELY IN WEIGHT AS POSSIBLE.
5. EACH FULLY CONSTRUCTED COLLAR SHALL BE TESTED TO ENSURE PROPER BONDING BY PICKING UP ONE ROCK ON THE COLLAR AND SUSPENDING THE OTHER. ALL ROCK COLLARS SHALL BE WEIGHED AND FLAGGED WITH WEIGHT.
6. THE LENGTH OF CHAIN SHALL BE DETERMINED IN THE FIELD; LENGTHS ARE ANTICIPATED TO RANGE FROM 4–8 FEET.
7. COMPLETED ROCK COLLAR SHALL HAVE A MINIMUM WEIGHT OF 6,000 POUNDS.

ROCK COLLAR DETAIL 2/27
SCALE: 1" = 5'



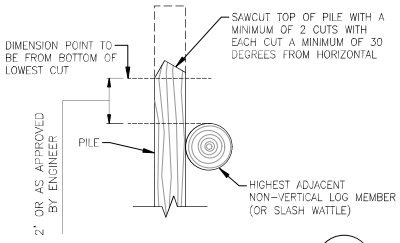
SLASH WATTLE NOTES

1. CONSTRUCT SLASH WATTLES AS 16–24" DIA. 20' LONG BUNDLES OF RACKING AND SLASH MATERIAL (APPROX. 2–3 CY OF SLASH). SURROUND SLASH WITH 4–6 PIECES OF 4–8" DIA. RACKING MATERIAL AND SECURE SLASH WATTLES WITH A DOUBLE WRAP OF MANILLA ROPE AS NEEDED TO MAINTAIN SHAPE DURING INSTALLATION.
2. PLACE SLASH WATTLES EMBEDDED HALF THE DIAMETER OF THE WATTLE AND ALIGNED PARALLEL WITH THE TOP OF THE CHANNEL BANK. APPROXIMATE LOCATIONS ARE SHOWN ON THE PLANS; THE ENGINEER WILL DETERMINE AND STAKE FINAL LOCATIONS IN THE FIELD.
3. ANCHOR SLASH WATTLES WITH TWO PAIRS OF 10" DIA., 15' LONG (PG–15) PILES WITH A PAIR POSITIONED APPROXIMATELY 5' FROM EACH END (FOUR PILES TOTAL). INSTALL ONE PILE VERTICALLY AT THE FACE OF THE WATTLE. INSTALL A SECOND BATTER PILE NEXT TO THE VERTICAL PILE AND AGAINST THE TOP OF THE WATTLE.



SLASH WATTLE SECTION DETAIL

SLASH WATTLE DETAIL 3/27
SCALE: 1" = 4'



SAWCUT PILE TOP DETAIL 4/27
NTS

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

ENGINEER OF RECORD
JON HOUSEN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
COUNTY ENGINEER

PROJECT NO.: EC0114-S
FED. AID NO.: 4650DR-WA #674680
DESIGNED BY: NT
DRAWN BY: DBS
CHECKED BY:
APPROVED BY:
PROJECT LOCATED NEAR: CONCRETE, WA
S 14 T 34 N R 9 E

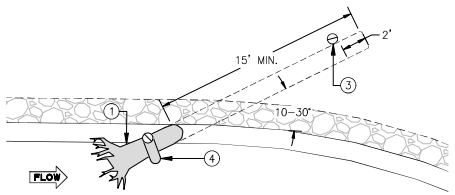
CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL STRUCTURE DETAILS (2 OF 3)

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

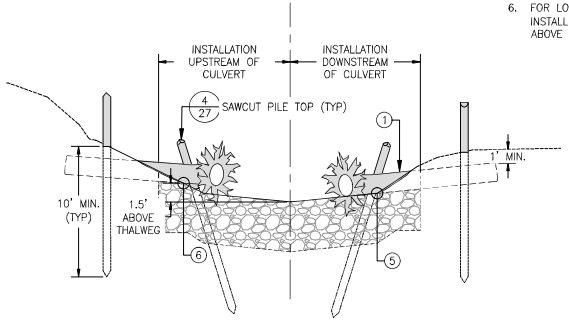
SHEET 27 OF 30

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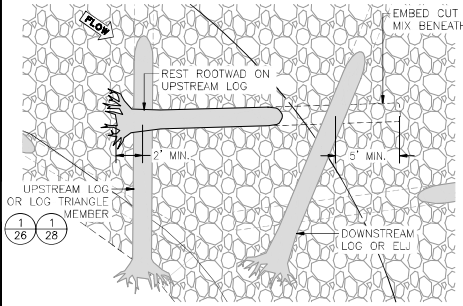


BANK ROOTWAD NOTES

1. BANK ROOTWAD LOCATIONS WILL BE STAKED BY THE ENGINEER.
2. INSTALL 18" DIA 20' LONG LOG WITH ROOTWAD INTO CHANNEL BANK WITH ROOTWAD PROJECTING INTO CHANNEL.
3. INSTALL 12" DIA., 20' LONG (PF–20) VERTICAL PILE INTO BANK ADJACENT TO LOG ON UPSTREAM SIDE.
4. INSTALL 12" DIA., 20' LONG (PF–20) PILE ON A BATTER ON DOWNSTREAM SIDE OF LOG AS DIRECTED BY ENGINEER TO PIN LOG IN PLACE.
5. FOR LOGS DOWNSTREAM OF THE CULVERT, INSTALL LOGS WITH BOTTOM OF LOGS SITTING AT THE TOE OF THE CONSTRUCTED CHANNEL.
6. FOR LOGS UPSTREAM OF THE CULVERT, INSTALL LOGS WITH BOTTOM OF LOG 1.5' ABOVE CHANNEL THALWEG.

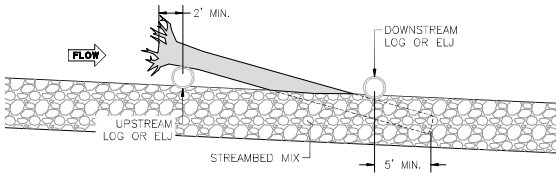


BANK ROOTWAD DETAIL 1/28
NTS

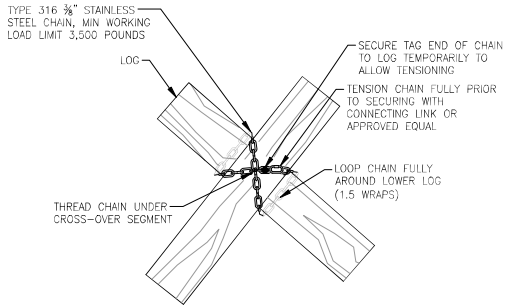


CHANNEL ROOTWAD NOTES

1. INSTALL 18" DIA LOG WITH ROOTWAD EMBEDDED INTO CONSTRUCTED CHANNEL BED. LOCATION AND ORIENTATION TO BE IDENTIFIED IN THE FIELD BY THE ENGINEER. SHORT CHANNEL ROOTWADS SHALL BE 25' LONG AND LONG CHANNEL ROOTWADS SHALL BE 40' LONG.
2. CHANNEL ROOTWAD LOG SHALL BE ORIENTED WITH ROOTWAD FACING UPSTREAM. ROOTWAD END SHALL REST ON TOP OF OTHER LOG. CUT LOG END SHALL BE ORIENTED DOWNSTREAM AND EMBEDDED IN STREAMBED MIX BENEATH OTHER LOG AS SHOWN.
3. INCORPORATE SLASH (2–3 CY) INTO BACKFILL OF PARTIALLY EXPOSED CHANNEL ROOTWADS AS DIRECTED BY ENGINEER.



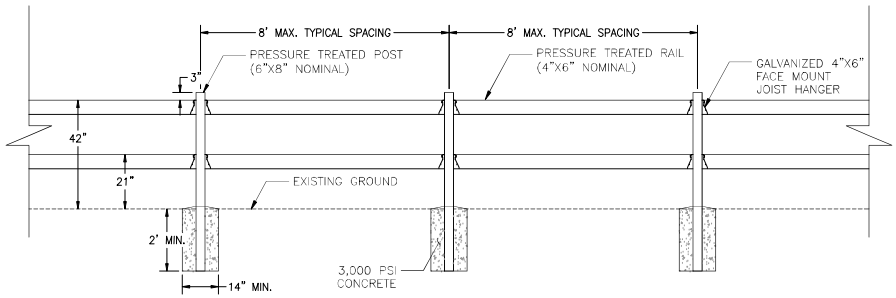
CHANNEL ROOTWAD DETAIL 3/28
NTS

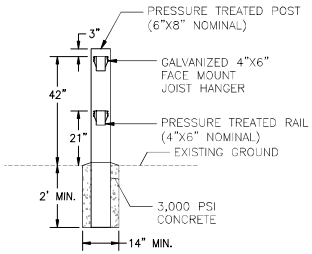


CROSS CHAIN LASHING NOTES

1. SECURE TAG END OF CHAIN TO TOP LOG TEMPORARILY USING A RAILROAD SPIKE, LARGE FENCING NAIL, OR SIMILAR.
2. WRAP THE CHAIN FULLY AROUND THE BOTTOM LOG THEN ANOTHER HALF WRAP AROUND THE UNDERSIDE OF THE BOTTOM LOG. THEN CROSS OVER THE TOP LOG DIAGONALLY.
3. WRAP CHAIN FULLY AROUND THE BOTTOM LOG THEN ANOTHER HALF WRAP AROUND THE UNDERSIDE OF THE BOTTOM LOG.
4. PULL CHAIN BACK TO THE TAG END SECURED TO THE TOP LOG.
5. SQUARE UP ALL WRAPS AND LOOPS TO REMOVE SLACK PRIOR TO TENSIONING.
6. APPLY TENSION TO THE CHAIN USING MECHANICAL MEANS (CHAIN BINDER, OR SIMILAR); WHILE CHAIN IS FULLY TENSIONED, APPLY QUICK LINK TO CHAIN WHILE TENSIONED THEN SLOWLY RELEASE TENSION.
7. TRIM EXCESS CHAIN.

CROSS CHAIN LASHING DETAIL 2/28
NTS





TIMBER HANDRAIL NOTES:

1. TIMBER HANDRAIL SHALL BE CONSTRUCTED FROM PRESSURE TREATED (GROUND CONTACT RATED) NOMINAL LUMBER.
2. EMBED TIMBER POSTS A MINIMUM OF 2 FEET BELOW THE EXISTING GROUND SURFACE.
3. PITS FOR POSTS SHALL BE NEATLY CREATED, FREE OF DEBRIS AND WATER, AND SHALL MEET THE MINIMUM DIMENSIONS SHOWN ON THIS SHEET.
4. BACKFILL PITS FOR POSTS WITH CONCRETE (MINIMUM 3,000 PSI COMPRESSIVE STRENGTH) AND SHALL HAVE A SLOPING MINIMUM OF 1" ABOVE GROUND.
5. ALLOW CONCRETE TO CURE A MINIMUM OF 24 HOURS PRIOR TO ATTACHING RAILS.
6. CONNECT RAILS TO POSTS WITH GALVANIZED FACE MOUNTED JOIST HANGERS AND MANUFACTURER RECOMMENDED NAILS OR SCREWS.
7. ALL POSTS AND RAILS SHALL BE SIMILAR IN APPEARANCE.

TIMBER HANDRAIL DETAIL 4/28
NTS

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

NO.	REVISIONS	DATE

ENGINEER OF RECORD
JON HOUSTON
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
COUNTY ENGINEER

PROJECT NO.: EC0114-S
FED. AID NO.: 46500R-WA #674680
DESIGNED BY: NT
DRAWN BY: DBS
CHECKED BY:
APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

CHANNEL STRUCTURE DETAILS (3 OF 3)

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 28 OF 30

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PLANTING AREA LEGEND

SLOPE PLANTING AREA (SP)

TERRACE PLANTING AREA (TP)

NOTES:

1. FOLLOWING COMPLETION OF EARTHWORK AND STRUCTURE PLACEMENT, ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED ACCORDING TO SHEET 8.
2. PLANTING SHALL OCCUR FOLLOWING SEEDING ACCORDING TO THE AREAS SHOWN THIS SHEET AND THE SCHEDULES LISTED ON SHEET 30.
3. PLANTING BOUNDARIES SHOWN ON THIS SHEET ARE THE EXPECTED LIMITS OF DISTURBANCE RESULTING FROM THE SOUTH OSTERMAN CREEK PROJECT AND MAY VARY AT THE TIME OF PLANTING. PLANTING BOUNDARIES AND LAYOUT SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
4. PLANTING SHALL OCCUR AROUND EXISTING STRAW WATTLES, PLACED AS SHOWN ON SHEET 8. STRAW WATTLES SHALL REMAIN.
5. NO PLANTING SHALL OCCUR WITHIN 10' OF THE FINISHED EDGE OF PAVEMENT.

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1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273-5625
(360) 416-1400

REVISIONS | DATE

ENGINEER OF RECORD
COUNTY ENGINEER

PROJECT NO.: EC0114-5
FED. AID NO.: 46500P-WA #674680
DESIGNED BY: NT | DRAWN BY: DBS
CHECKED BY: | APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

PLANTING PLAN

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 29 OF 30

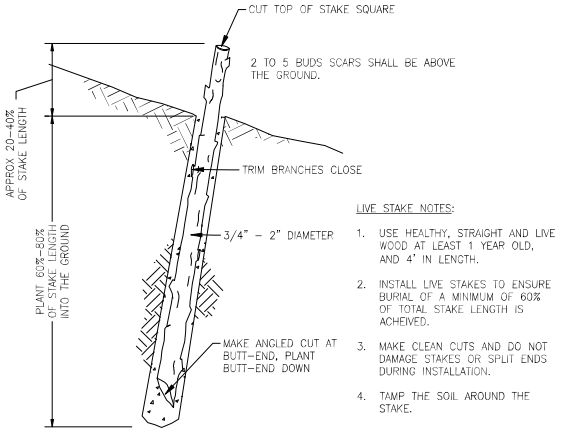
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SLOPE PLANT SCHEDULE							AREA QUANTITIES			
PLANT TYPE	ID	SPECIES NAME	COMMON NAME	TYP. SPACING	SIZE	TOTAL QUANTITY 0.33 AC	SP1 2584 SF	SP2 1136 SF	SP3 7060 SF	SP4 3725 SF
TREE										
	ACMA	ACER MACROPHYLLUM	BIGLEAF MAPLE	8'	1 GAL	12	2	1	6	3
	ALRU	ALNUS RUBRA	RED ALDER	8'	1 GAL	12	2	1	6	3
	CRDO	CRATAEGUS DOUGLASII	BLACK HAWTHORN	8'	1 GAL	12	2	1	6	3
	PSME	PSEUDOTSUGA MENZIESII	DOUGLAS-FIR	8'	1 GAL	23	4	2	11	6
	SALA	SALIX LASIANDRA	PACIFIC WILLOW	3'	4' LIVE STAKE	161	29	13	78	41
SHRUB										
	ACCI	ACER CIRCINATUM	VINE MAPLE	6'	1 GAL	40	7	3	20	10
	COCO	CORYLUS CORNUTA	BEAKED HAZELNUT	6'	1 GAL	21	4	2	10	5
	COSE	CORNUS SERICEA	REDOSIER DOGWOOD	4'	1 GAL	90	16	7	44	23
	OECE	OEMLERIA CERASIFORMIS	OSOBERRY	4'	1 GAL	46	8	4	22	12
	RIDI	RIBES DIVARICATUM	SPREADING GOOSEBERRY	4'	1 GAL	46	8	4	22	12
	RUPA	RUBUS PARVIFLORUS	THIMBLEBERRY	4'	1 GAL	46	8	4	22	12
	RUSP	RUBUS SPECTABILIS	SALMONBERRY	4'	1 GAL	90	16	7	44	23
	SYAL	SYMPHORICARPOS ALBUS	SNOWBERRY	4'	1 GAL	46	8	4	22	12
GROUND										
	ARUV	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	3'	4"	80	14	6	39	21
	ACMI	ACHILLEA MILLEFOLIUM	COMMON YARROW	3'	1 GAL	80	14	6	39	21
					TOTAL QUANTITIES	805	142	65	391	207

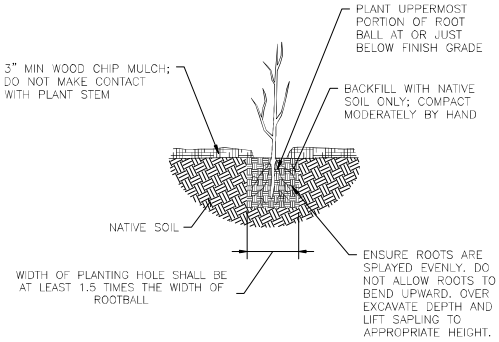
TERRACE PLANT SCHEDULE							AREA QUANTITIES			
PLANT TYPE	ID	SPECIES NAME	COMMON NAME	TYP. SPACING	SIZE	TOTAL QUANTITY 0.24 AC	TP1 4073 SF	TP2 1411 SF	TP3 1101 SF	TP4 4037 SF
TREE										
	ACMA	ACER MACROPHYLLUM	BIGLEAF MAPLE	8'	1 GAL	16	6	2	2	6
	PSME	PSEUDOTSUGA MENZIESII	DOUGLAS-FIR	8'	1 GAL	25	10	3	3	9
	THPL	THUJA PLICATA	WESTERN RED CEDAR	8'	1 GAL	16	6	2	2	6
SHRUB										
	ACCI	ACER CIRCINATUM	VINE MAPLE	6'	1 GAL	29	11	4	3	11
	SARA	SAMBUCUS RACEMOSA	RED ELDERBERRY	6'	1 GAL	45	17	6	5	17
	SYAL	SYMPHORICARPOS ALBUS	SNOWBERRY	4'	1 GAL	66	25	9	7	25
GROUND										
	MAAQ	BERBERIS AQUIFOLIUM	TALL OREGONGRAPE	4'	1 GAL	99	38	13	10	38
	POMU	POLYSTICHUM MUNITUM	WESTERN SWORDFERN	3'	1 GAL	177	68	24	18	67
					TOTAL QUANTITIES	473	181	63	50	179

GENERAL NOTES:

1. SEE SHEET 29 FOR PLANTING AREA LOCATIONS.
2. TYPICAL SPACING INDICATES MINIMUM PLANTING DISTANCE BETWEEN LIKE SPECIES. PLANTS SHALL BE EVENLY SPACED ACROSS THE PLANTING AREA SUCH THAT ALL PLANTING AREAS ARE EVENLY COVERED.
3. IF SUFFICIENT QUANTITIES OF PLANT MATERIALS ARE NOT AVAILABLE IN THE SIZES SPECIFIED, THE CONTRACTOR MAY SUBSTITUTE MATERIAL IN EQUIVALENT OR GREATER SIZE, AS APPROVED BY THE ENGINEER.
4. LIVE STAKES SHALL BE PLANTED LANDWARD OF THE CREEK, WITHIN 5' OF THE CONSTRUCTED TOP OF BANK.
5. EXISTING WOOD CHIP MULCH SHALL BE REFRESHED FOLLOWING PLANTING ACTIVITIES, AS DIRECTED BY THE ENGINEER. FINISHED MULCH PLACEMENT SHALL BE MIN. 3" DEPTH AND SHALL NOT EXCEED 6" DEPTH. TAPER MULCH NEAR BASE OF EACH PLANT TO ENSURE MULCH DOES NOT MAKE CONTACT WITH PLANT STEMS. WOOD CHIP MULCH SHALL NOT BE PLACED WITHIN 3" OF THE PLANT STEM.



LIVE STAKE DETAIL 1/30
NOT TO SCALE



BARE ROOT AND CONTAINER PLANTING DETAIL 2/30
NOT TO SCALE

NSD CGS Natural Systems Design + Coastal Geologic Services

SKAGIT COUNTY PUBLIC WORKS
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MOUNT VERNON, WA 98273-5625
(360) 416-1400

DATE
REVISIONS
NO.

ENGINEER OF RECORD
STATE OF WASHINGTON
JOSEPH A. HESS
21625
REGISTERED PROFESSIONAL ENGINEER

COUNTY ENGINEER

PROJECT NO.: EC0145
FED. AID NO.: 4630DR-WA #674680
DESIGNED BY: NT
DRAWN BY: DBS
CHECKED BY:
APPROVED BY:

PROJECT LOCATED NEAR:
CONCRETE, WA
S 14 T 34 N R 9 E

CONCRETE SAUK VALLEY ROAD CULVERT REPAIR PROJECT - SOUTH OSTERMAN CREEK

PLANT SCHEDULES & DETAILS

1 INCH SCALE BAR
ADJUST SCALE ACCORDINGLY

SHEET 30 OF 30

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