
Cowlitz County
Department of Public Works

**CONTRACT DOCUMENTS
FOR**

**GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT
(M.P. 0.67 TO 0.77, Road Number 23200)**

**SW ¼ SEC. 17, T9N, R2W
SE ¼ SEC. 18, T9N, R2W**

**Cowlitz County Project No. 1779
C.R.P. No. 764**

MARCH 2025

COWLITZ COUNTY
Department of Public Works
1600-13th Avenue South
Kelso, Washington 98626
Phone (360) 577-3030

BOARD OF COUNTY COMMISSIONERS
STEVE RADER District No. 1
STEVEN L. FERRELL District No. 2
RICHARD R. DAHL District No. 3

Cowlitz County

Department of Public Works

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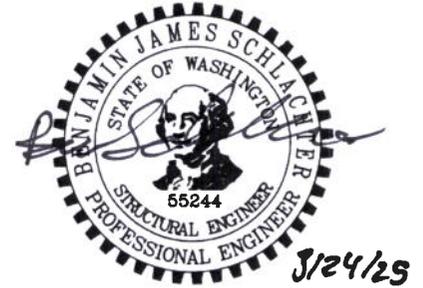
MARCH 2025



Responsible for Bid Items:
28, 29, 34-39, 45-48



Responsible for Bid Items:
1-18, 27, 30-33, 40-44
and all other portions of Contract Documents:



Responsible for Bid Items:
19-26

COWLITZ COUNTY
Department of Public Works
1600-13th Avenue South
Kelso, Washington 98626
Phone (360) 577-3030

Approved by:

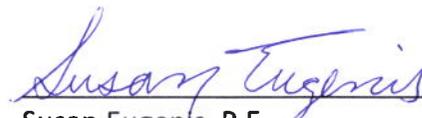

Susan Eugenis, P.E. _____ Date
County Engineer

TABLE OF CONTENTS
GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT

CALL FOR BIDS	Page 1
BIDDER’S CHECKLIST	Page 3
BID PROPOSAL	Page 5
INSTRUCTIONS TO BIDDERS.....	Page 5
PROPOSAL.....	Page 7
NON-COLLUSION DECLARATION	Page 11
PROPOSAL FOR INCORPORATING RECYCLED MATERIALS INTO PROJECT	Page 12
LOCAL AGENCY SUBCONTRACT LIST	Page 13
BID DEPOSIT FORM	Page 14
E-VERIFY DECLARATION	Page 15
COMPLIANCE WITH WAGE PAYMENT LAWS DECLARATION	Page 16
AGREEMENT	Page 17
PERFORMANCE BOND	Page 21
SPECIAL PROVISIONS	Page 22
DIVISION 1 – GENERAL REQUIREMENTS	Page 23
BID ITEMS	Page 67
BID ITEM 1: MISCELLANEOUS CONSTRUCTION.....	Page 67
BID ITEM 2: STRUCTURE SURVEYING.....	Page 67
BID ITEM 3: ROADWAY SURVEYING.....	Page 67
BID ITEM 4: MOBILIZATION.....	Page 68
BID ITEM 5: PROJECT TEMPORARY TRAFFIC CONTROL.....	Page 68
BID ITEM 6: CLEARING AND GRUBBING.....	Page 68
BID ITEM 7: REMOVAL OF STRUCTURES AND OBSTRUCTIONS.....	Page 69
BID ITEM 8: ROADWAY EXCAVATION, EMBANKMENT AND DISPOSAL INCLUDING HAUL.....	Page 70
BID ITEM 9: ROCK EXCAVATION INCLUDING HAUL.....	Page 70
BID ITEM 10: UNSUITABLE FOUNDATION EXCAVATION INCLUDING HAUL.....	Page 70
BID ITEM 11: STRUCTURE EXCAVATION CLASS A INCLUDING HAUL.....	Page 73
BID ITEM 12: SHORING OR EXTRA EXCAVATION CLASS A.....	Page 73
BID ITEM 13: TRIMMING AND CLEANUP.....	Page 74
BID ITEM 14: CONSTRUCTION GEOTEXTILE FOR SEPARATION.....	Page 74
BID ITEM 15: STRUCTURAL FILL INCLUDING HAUL.....	Page 75
BID ITEM 16: CRUSHED SURFACING BASE COURSE.....	Page 77
BID ITEM 17: HMA CLASS 3/8 INCH PG 58H-22.....	Page 78
BID ITEM 18: ASPHALT COST PRICE ADJUSTMENT.....	Page 78
BID ITEM 19: CONCRETE CLASS 5000.....	Page 105
BID ITEM 20: ST. REINF. BAR FOR BRIDGE.....	Page 105
BID ITEM 21: ST. REINF. BAR FOR WINGWALL.....	Page 105
BID ITEM 22: GRAVEL BACKFILL FOR FOUNDATIONS CLASS A.....	Page 105
BID ITEM 23: GRAVEL BACKFILL FOR WALL.....	Page 105
BID ITEM 24: DRIVING ST. PILE.....	Page 105
BID ITEM 25: FURNISHING ST. PILING, 12-INCH DIAMETER.....	Page 105
BID ITEM 26: ROCK EXCAVATION FOR SHAFT INCLUDING HAUL.....	Page 106

TABLE OF CONTENTS - CONTINUED

BID ITEM 27: INSTALLATION OF AGENCY SUPPLIED BURIED STRUCTURE Page 106

BID ITEM 28: UNDERDRAIN PIPE, 6-INCH DIAM Page 107

BID ITEM 29: GRAVEL BACKFILL FOR DRAIN Page 107

BID ITEM 30: CORRUGATED POLYETHYLENE STORM SEWER PIPE,
18-INCH DIAMETER Page 108

BID ITEM 31: STORMWATER POLLUTION PREVENTION Page 109

BID ITEM 32: EROSION CONTROL BLANKET..... Page 110

BID ITEM 33: SILT FENCE..... Page 110

BID ITEM 34: COMPOST BLANKET Page 110

BID ITEM 35: TOPSOIL TYPE B Page 110

BID ITEM 36: PSIFE - 10 INCH PLUG SHRUB..... Page 110

BID ITEM 37: PSIFE - 1 GALLON TREE Page 110

BID ITEM 38: SEEDING, FERTILIZING, AND MULCHING Page 110

BID ITEM 39: WOOD CHIP MULCH RINGS..... Page 110

BID ITEM 40: FLEXIBLE GUIDE POST..... Page 112

BID ITEM 41: BEAM GUARDRAIL TYPE 31 Page 113

BID ITEM 42: BEAM GUARDRAIL ANCHOR TYPE 11..... Page 113

BID ITEM 43: BEAM GUARDRAIL NON-FLARED TL-2 TERMINAL..... Page 113

BID ITEM 43: MAILBOX SUPPORT, TYPE 2 Page 113

BID ITEM 44: PAINT LINE..... Page 114

BID ITEM 45: CHANNEL FILL MATERIAL INCLUDING HAUL..... Page 115

BID ITEM 46: TEMPORARY STREAM DIVERSION..... Page 116

BID ITEM 47: LARGE WOODY MATERIAL Page 120

BID ITEM 48: DEADMAN ANCHOR Page 120

STANDARD PLANS (NOVEMBER 4, 2024) Page 121

PREVAILING MINIMUM HOURLY WAGE RATES* Page 131**

PLANS Page 132

APPENDICES Page 133

Appendix A – Topographic Survey*** Page 134

Appendix B – HPA from Washington State Department of Fish and Wildlife *** ... Page 135

Appendix C – Nationwide Permit 14 from US Army Corps of Engineers *** Page 136

Appendix D – Construction Stormwater General Permit from Washington State ..
Department of Ecology *** Page 137

Appendix E – Geotechnical Report*** Page 138

Appendix F - Applicable Standard Plans Page 139

CALL BEFORE YOU DIG..... Page 140

***Included as indicated but numbered independently.

CALL FOR BIDS

The Board of County Commissioners of Cowlitz County, Washington will receive sealed bids until April 21, 2025, **prior to 1:30 p.m.**, for the following work: **GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT.**

Work performed under this contract consists of the following:

Clearing and grubbing, installation of temporary stream diversion, shoring, excavation, removal of existing concrete box culvert, steel pile driving, reinforced concrete pile caps and wingwalls, installation of a 55-foot span steel structural plate arch culvert, roadway reconstruction, streambed reconstruction, installation of salvaged logs, seeding and mulching, plantings, and associated work.

At that time all bids will be publicly opened and read in the Public Works Administration Building Training Room. Bids must be addressed to:

Cowlitz County Department of Public Works
Attn: County Engineer
1600 13th Avenue South
Kelso WA 98626

Project bid documents (Plans, specifications, addenda, bid documents, bidders list and plan holders list) for this project are available online for inspection during the bidding period through the Builders Exchange of Washington (BXWA) website at www.bxwa.com. Click on Posted Projects, then Public Works, then Cowlitz County and then Projects Bidding. These documents are available for viewing, downloading and printing on your own equipment free of charge. This service is provided to Prime Bidders, Subcontractors, and Vendors bidding on this project. Bidders will need to "Register as a Bidder" through the BXWA in order to receive automatic e-mail notification of future addenda and to be placed on the Bidders List. Bidders should contact Builder's Exchange of Washington at (425) 258-1303 for questions regarding access or registration.

It is the sole responsibility of the Bidder to obtain Addenda, if any. Addenda information will be available on the BXWA web site at www.bxwa.com. Cowlitz County accepts no responsibility or liability and will provide no accommodation to bidders who fail to check for addenda and thereby submit inadequate or incomplete responses.

Cowlitz County will not provide paper copies of the Project bid documents for this project for bidding purposes. A copy of the plans and specifications may be reviewed at the office of the Clerk of the Board of County Commissioners.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check, or surety bond in an amount equal to five percent (5%) of the amount of such

bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to Cowlitz County.

All documents received in response to this invitation to bid will become a matter of public record and subject to the Washington public disclosure act under chapter 42.56 RCW.

Cowlitz 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 in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The Board reserves the right to reject any and all bids and to waive any immaterial irregularities or informalities in any bid or in the bidding.

DATED this _____ day of _____, 2025.

BOARD OF COUNTY COMMISSIONERS
OF COWLITZ COUNTY, WASHINGTON

Richard R. Dahl, Chairman

Steve Rader, Commissioner

Steven L. Ferrell, Commissioner

ATTEST:

Kelly Grayson, Clerk of the Board

SIGNATURES PENDING

BIDDER'S CHECKLIST

(Informational only – not required to be submitted with the BID)

GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT

Name of Project

ITEMS TO BE INCLUDED WITH BID

The following checked items are required to be completed and submitted with the BID, except as noted otherwise:

Required if Checked:

- 1. PROPOSAL FORM – To be completed and signed by bidder. Provide all information pertaining to BIDDER'S organization on the first page. Fill in all unit prices and amounts for each bid item. Fill in all subtotals, sales tax and the total bid amount in the spaces provided. List the addenda in the spaces provided to indicate acknowledgement. Sign, date, and provide requested information in the spaces provided on the last page.
- 2. APPRENTICE UTILIZATION PLAN – In accordance with Special Provisions Section 1-07.9, this form shall be submitted within 30 calendar days of execution, however no later than the preconstruction meeting.
- 3. NON-COLLUSION DECLARATION – required on all projects.
- 4. PROPOSAL FOR INCORPORATING RECYCLED MATERIALS INTO THE PROJECT – required on all road construction projects.
- 5. CERTIFICATION FOR FEDERAL AID CONTRACTS – required on FHWA-funded projects.
- 6. DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION CERTIFICATION – required on FHWA-funded projects with a goal of greater than 0%.
- 7. DISADVANTAGED BUSINESS ENTERPRISE (DBE) WRITTEN CONFIRMATION DOCUMENT – required on FHWA-funded projects with a goal of greater than 0%. This form is required to be submitted within 48 hours after the time for delivery of the bid proposal.
- 8. DISADVANTAGED BUSINESS ENTERPRISE (DBE) BID ITEM BREAKDOWN – required on FHWA-funded projects with a goal of greater than 0%. This form is required to be submitted within 48 hours after the time for delivery of the bid proposal.
- 9. DISADVANTAGED BUSINESS ENTERPRISE (DBE) TRUCKING CREDIT FORM – required on FHWA-funded projects with a goal of greater than 0%. This form is required to be submitted within 48 hours after the time for delivery of the bid proposal.

- 10. LOCAL AGENCY SUBCONTRACTOR LISTS – To be filled in and signed by BIDDER.
- 11. CONTRACTOR’S PROJECT INFORMATION STANDARD QUESTIONNAIRE - The BIDDER shall complete this form.
- 12. BID DEPOSIT FORM - This form is to be executed by the BIDDER and the Surety Company unless bid is accompanied by cash, cashier’s check, or a certified check. The amount of the deposit or bid bond shall be not less than 5% of the total amount of the bid and may be shown in dollars or on a percentage basis. Bid Bond forms other than the enclosed form may be accepted providing it has been approved by the OWNER prior to bid submittal.
- 13. E-VERIFY DECLARATION – The BIDDER shall complete and sign this form.
- 14. CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES – The BIDDER shall complete and sign this form. This form is required to be submitted within 24 hours after the time for delivery of the bid proposal.
- 15. BIDDER QUESTIONNAIRE – To be filled in and signed by BIDDER.

PROPOSAL FORM

TO: Board of County Commissioners
County Administration Building
207 Fourth Avenue North, 3rd Floor
Kelso, WA 98626

FOR: **GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT**
Name of Project

FROM:

_____	_____
Bidder's Business Name	Mailing Address
_____	_____
Email Address	City, State and Zip
_____	_____
Name of Bidder's Representative for Bid	Telephone
_____	_____
Washington Registration No.	Tax I.D. No.
_____	_____
Employment Security Department No.	State Excise Tax Registration No.
_____	_____
Industrial Insurance Coverage Account No.	UBI No.

INSTRUCTIONS TO BIDDERS

1. Contract Documents. See Section 1-04.2 of the Special Provisions for a list of the "contract documents" that make up the contract. Be sure that you have a copy of the **2025** Standard Specifications for Road, Bridge, and Municipal Construction, by the Washington State Department of Transportation and the American Public Works Association, Washington State Chapter. Such specifications are sometimes referred to as the "Standard Specifications."

2. Submission of Bid. Fill out this Proposal Form completely, in accordance with Section 1-02.6 of the Standard Specifications. Enclose your Proposal Form and bid deposit in an opaque sealed envelope addressed to:

Cowlitz County Department of Public Works
Attn: County Engineer
1600 13th Avenue South
Kelso, WA 98626

Mark the outside of the envelope with the name of the bidder, the name of the project, and the date and time of the bid opening. It is your responsibility to make sure that your bid is physically received by the Clerk of the Board by the time set for the bid opening. Bids not so received will not be considered. Bids may not be submitted by facsimile machine.

The County's determination of when a bid was received shall be final and non-appealable.

3. Bidder Responsibility Standards. It is the intent of the Owner to award a contract to the lowest, responsible and responsive bidder for all described Work. Before award, the bidder must meet all criteria and satisfy all requirements of the following bidder-responsibility standards to be considered a responsible and a responsive bidder. The bidder may be required by the Owner to submit documentation demonstrating compliance with these standards to be qualified to be awarded a contract. The bidder must:

- a. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal;
- b. Have a current Washington Unified Business Identifier (UBI) number;
- c. If applicable:
 - i. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
 - ii. Have a Washington Employment Security Department number, as required in Title 50 RCW;
 - iii. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
- d. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).

4. Execution of Contract. The successful bidder must use the performance bond form and other forms provided by Cowlitz County to be considered both a responsible and responsive bidder.

5. Sales Tax Code. In computing and reporting sales taxes payable to the Washington State Department of Revenue on this project, the following code number shall be used: **0800**.

PROPOSAL

The undersigned bidder proposes to perform the project named above in strict compliance with the contract documents, for the following amounts:

Item No.	Approximate Quantity	ITEM	UNIT PRICE \$	AMOUNT \$
1	Force Account	Miscellaneous Construction	20,000.00	20,000.00
2	Lump Sum	Structure Surveying		
3	Lump Sum	Roadway Surveying		
4	Lump Sum	Mobilization		
5	Lump Sum	Project Temporary Traffic Control		
6	Lump Sum	Clearing and Grubbing		
7	Lump Sum	Removal of Structures and Obstructions		
8	1,350 C.Y.	Roadway Excavation, Embankment and Disposal Including Haul		
9	50 C.Y.	Rock Excavation Including Haul		
10	50 C.Y.	Unsuitable Foundation Excavation Including Haul		
11	Lump Sum	Structure Excavation Class A Including Haul		
12	Lump Sum	Shoring or Extra Excavation Class A		
13	Lump Sum	Trimming and Cleanup		
14	1,977 S.Y.	Construction Geotextile for Separation		
15	7,540 Ton	Structural Fill Including Haul		

Item No.	Approximate Quantity	ITEM	UNIT PRICE \$	AMOUNT \$
16	1,676 Ton	Crushed Surfacing Base Course		
17	234 Ton	HMA Class 3/8 Inch PG 58H-22		
18	Calculation	Asphalt Cost Price Adjustment	0.00	0.00
19	289 C.Y.	Conc. Class 5000		
20	28,330 LB	St. Reinf. Bar for Bridge		
21	29,892 LB	St. Reinf. Bar for Wingwall		
22	88 C.Y.	Gravel Backfill for Foundations Class A		
23	347 C.Y.	Gravel Backfill for Wall		
24	52 Each	Driving St. Pile		
25	1136 L.F.	Furnishing St. Piling, 12-Inch Diameter		
26	6 C.Y.	Rock Excavation for Shaft Including Haul		
27	Lump Sum	Installation of Agency Supplied Buried Structure		
28	100 L.F.	Underdrain Pipe, 6-In. Diam.		
29	10 C.Y.	Gravel Backfill for Drain		
30	50 L.F.	Corrugated Polyethylene Storm Sewer Pipe, 18-inch Diameter		
31	Lump Sum	Stormwater Pollution Prevention		
32	1,380 S.Y.	Erosion Control Blanket		

Item No.	Approximate Quantity	ITEM	UNIT PRICE \$	AMOUNT \$
33	2,396 L.F.	Silt Fence		
34	530 S.Y.	Compost Blanket		
35	0.61 Acre	Topsoil Type B		
36	120 Each	PSIPE - 10 Inch Plug Shrub		
37	42 Each	PSIPE - 1 Gallon Tree		
38	0.50 Acre	Seeding, Fertilizing, And Mulching		
39	162 Each	Wood Chip Mulch Rings		
40	10 Each	Flexible Guide Post		
41	388 L.F.	Beam Guardrail Type 31		
42	4 Each	Beam Guardrail Anchor Type 11		
43	1 Each	Mailbox Support, Type 2		
44	1,706 L.F.	Paint Line		
45	2,400 Ton	Channel Fill Material Including Haul		
46	Lump Sum	Temporary Stream Diversion		
47	19 Each	Large Woody Material		
48	2 Each	Deadman Anchor		

TOTAL COST TO COWLITZ COUNTY.....\$_____

Addenda. The bidder acknowledges receipt of the following addenda: _____, _____, _____, _____, and _____. (Insert numbers of any addenda received.)

Non-Collusion. Each bidder must submit a declaration of non-collusion completely executed with their bid. Reasonable grounds for believing that any bidder(s) have engaged, either directly or indirectly, into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with this bid will cause rejection of all proposals which said bidder(s) has shown interest, and none of the participants to such direct or indirect actions will be considered.

The person(s) signing this bid on behalf of the bidder declare(s) under penalty of perjury under the laws of the United States and the State of Washington that this bidder has 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 this bid.

Date

Signature of Person Authorized to Bind Bidder

Bidder's Business Name

Title of Person Signing Bid

Signed in _____, Washington

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.

DOT Form 272-036I EF
07/2011



Proposal for Incorporating Recycled Materials into the Project

In compliance with a new law that went into effect January 1, 2016 (SHB1695), 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: _____

Local Agency Name
Local Agency Address

Local Agency Subcontractor List

Prepared in compliance with RCW 39.30.060 as amended

To Be Submitted with the Bid Proposal

Project Name _____

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.

DOT Form 271-015A
 Revised 06/2020

BID DEPOSIT FORM

GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT

Name of Project

Name of Bidder

The bidder named above hereby submits its bid deposit in the form of a certified check, cashier's check, cash or bid bond in the amount of \$_____, which amount is not less than five (5) percent of the total bid.

PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____, as Principal and _____, 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 Cowlitz County as Obligee, 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 the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, 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 public works project, to wit:

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 the said Principal shall duly make and enter into and execute said contract and shall furnish bond as required by the contract documents within a period of ten (10) days from and after said award, exclusive of the day of such award, then this obligation shall be null and void, otherwise it shall be and remain in full force and effect.

SIGNED AND SEALED this _____ day of _____, 2025.

Name of Bidder

Name of Surety

Authorized Signature

Authorized Signature*

Title

Title

Date

* Attach Power of Attorney

E-VERIFY DECLARATION

GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT
Cowlitz County Project No. 1779

Firm Name: _____

The undersigned declares, under **penalty of perjury** under the laws of Washington that:

1. That the above-named firm is currently enrolled in and using the E-Verify system implemented on October 25, 2011 as outlined in Resolution No. 11-118 and will continue to use the E-Verify system for so long as work is being performed on the above named project.
2. I certify that I am duly authorized to sign this declaration on behalf of the above-named bidder/proposer.
3. I acknowledge that Cowlitz County reserves the right to require a copy of the Memorandum of Understanding between the contractor listed above and the Department of Homeland Security certifying enrollment in the E-Verify program at any time. Failure to provide the required Memorandum of Understanding within 10 days of request could lead to suspension of this contract.

Dated at _____, State of _____ on this _____ day of _____, 2025.

Signature _____

Printed Name _____

THIS PAGE MUST BE RETURNED WITH THE BID DOCUMENTS

COMPLIANCE WITH WAGE PAYMENT LAWS DECLARATION

GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT

Cowlitz County Project No. 1779

Firm Name: _____

1. The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date April 1, 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.
2. I certify that I am duly authorized to sign this declaration on behalf of the above-named bidder/proposer.
3. I acknowledge that Cowlitz County is required to receive this declaration as a condition to awarding the public works contract pursuant to RCW 39.04.350.

The undersigned declares, under penalty of perjury under the laws of Washington that the foregoing is true and correct.

Signed and dated at _____, in State of _____, on this _____ day of _____ 2025.

Signature _____

Printed Name _____

THIS PAGE MUST BE RETURNED BEFORE THE PUBLIC WORKS CONTRACT CAN BE AWARDED

AGREEMENT

THIS AGREEMENT is entered into between **COWLITZ COUNTY** and _____
_____ ("Contractor") for the following
project: **GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT** ("the Project").

The Parties Agree as Follows:

1. Acceptance of Bid Proposal. Cowlitz County accepts Contractor's bid proposal for the Project. Such acceptance is limited to the following items of the bid proposal: **1-48**.

2. Contractor to Accomplish Project. Contractor shall do all work and furnish all labor, materials, equipment, tools, services, and incidentals necessary to accomplish the Project in strict compliance with the contract documents.

3. Contract Amount. Cowlitz County shall pay Contractor in accordance with the contract documents, based on the unit prices and lump sums stated in the Proposal Form. The total contract amount for the Project shall not exceed \$ _____, including sales taxes.

4. Contract Documents. (a) This Agreement shall be governed by and incorporates by reference the **2025** Standard Specifications for Road, Bridge, and Municipal Construction, by the Washington State Department of Transportation and the American Public Works Association, Washington State Chapter (the "Standard Specifications"). All provisions of the Standard Specifications apply unless specifically modified herein. (b) The contract documents constitute the parties' entire and integrated agreement concerning the Project, and supersede all prior and contemporaneous negotiations, representations, or agreements, both written and oral.

5. Contractor Registration. By submitting a bid, each bidder warrants that it is currently a registered contractor in accordance with RCW 18.27. Continuous registration throughout the performance of the project is a requirement of the contract. The bidder shall promptly furnish proof of registration whenever requested.

6. Performance of Work. (a) The Contractor warrants that all work performed shall be free from defects in material and workmanship, shall conform to the contract documents, and shall be fit for Cowlitz County's intended purposes. If the Engineer determines that the work or any portion thereof fails to conform to the foregoing warranty, the Engineer shall give the Contractor written notice thereof and the Contractor shall then take corrective action as directed by the Engineer. The purpose of the corrective action will be to remedy all nonconforming work and any damage caused by the nonconforming work. The Contractor shall begin the repair or replacement within 10 days after

receiving the notice, and shall complete the work within such reasonable time as determined by the Engineer. If the Contractor fails to carry out the corrective action as required by this section, Cowlitz County may perform the corrective action with its own resources or by contract, and the Contractor shall pay all the costs thereof.

(b) If other provisions of the contract documents contain different performance requirements, the more stringent requirements shall apply.

(c) No inspection, acceptance, use, or occupancy of the work, or payment for the work, shall relieve the Contractor from its responsibilities.

(d) The Contractor warrants good title to all materials, supplies, and equipment incorporated into the work.

7. Uniformity of Equipment and Materials. Like items of equipment and materials to be incorporated into the work shall be products of one manufacturer.

8. Substitution of "Equal" Products. Unless otherwise provided, any reference in the contract documents to any product by a brand name, model, or catalog number shall be understood as establishing a standard of quality, and products equal in quality may be substituted if approved in advance by the Engineer. If the Contractor wishes to propose a substitution, it shall submit a written proposal in a form approved by the County, warranting and guarantying the substitute product will be, including but not limited to, at least equal to or better than the specified product in terms of quality, function, performance, compatibility and reliability, to the Engineer, whose decision shall be final. The proposal shall identify the proposed substitute product, and the Contractor shall upon request and at its expense furnish the Engineer with such detailed specifications, test results, and other data as are helpful to the Engineer. The Engineer will not consider any proposed substitution if there is inadequate time available to fully evaluate the proposal. If the Engineer approves a substitution proposed by the Contractor, it is understood that such approval is in reliance upon the Contractor's written warranty and guaranty the substitute product to be, including but not limited to, at least equal to or better than the specified product in terms of quality, function, performance, compatibility and reliability. There will be no additional compensation or extensions to the time for completion. If the installation, application or performance of the substitute product is not equal to the specified product, the Engineer may direct the Contractor to remove the substitute product and replace it with the specified product, and to remedy any damage and delay caused by the use of the substitute product, all at the Contractor's expense. The County has a right to a deductive Change Order if the substituted product proves less costly than the contractually required product.

9. Utilities. The Contractor shall comply with the provisions of RCW 19.122, Standard Specification 1-07.17, and this paragraph. The telephone number of the Cowlitz County Utilities Coordinating Council is (800) 424-5555. The Special Provisions and/or contract plans identify all underground facilities known by Cowlitz County to be located within the area of excavation required as part of the work. Locations and dimensions shown in the Special Provisions or on the plans are in

accordance with available information without uncovering, measuring, or other verification. If a utility is known or suspected of having underground facilities within the area of the excavation, and that utility is not a subscriber to the Cowlitz County Utilities Coordinating Council, the Contractor shall give individual notice to that utility.

10. Prevailing Wages and E-Verify. The Contractor shall pay all fees required by the Department of Labor and Industries in connection with the administration of the prevailing wage requirements. No increase in prevailing wage rates or fringe benefits shall be grounds for any additional compensation to the Contractor.

Cowlitz County requires that all businesses which contract with the County for contracts awarded by formal competitive procedures be enrolled in the Federal E-Verify Program. The requirement extends to every subcontractor meeting the same criteria. The Prime Contractor must provide certification of enrollment with bid submittal. The Prime Contractor is responsible for verification of every applicable subcontractor. Cowlitz County reserves the right to require a copy of a Memorandum of Understanding between the Prime or any Subcontractor and Department of Homeland Security upon request at any time during the project verifying the contractor's enrollment. Failure to provide this document could result in suspension of the project.

A copy of Resolution No. 11-118 is available at the Offices of the Board of County Commissioners. Federal E-Verify Program is a web-based application that can be accessed at www.dhs.gov/everify.

11. Air Pollution Regulations. The Southwest Washington Air Pollution Control Authority has adopted regulations to control the emission of contaminants into the air by sources within the Authority's jurisdiction, which includes Cowlitz County. The Contractor shall comply with all regulations and orders of such Authority.

12. Shoring. If in the performance of this contract, the Contractor or any subcontractor excavates any trench to a depth in excess of four feet, the Contractor shall provide adequate safety systems for the trench excavation that comply with the requirements of the Washington Industrial Safety and Health Act, RCW 39.04.180, and with all regulations thereunder. The costs associated with such trench safety systems are set forth as a separate bid item on each bidder's proposal. The costs of such trench safety systems shall not be considered as incidental to any other contract item, and any attempt to include the trench safety systems as an incidental cost is prohibited.

13. Worker's Benefits. The following is added at the end of Standard Specification 1-07.10: Notwithstanding the provisions of the preceding paragraphs, Contractor shall remain at all times liable for payment of any and all premiums due under Title 50 or Title 51 RCW, or any other employee benefit act, with respect to all work performed by Contractor or any subcontractor pursuant to this contract. Contractor shall indemnify, defend and hold Cowlitz County harmless from and against any claim or

demand for payment of such premiums. The Contractor's responsibilities under this section shall survive the termination or completion of the contract and/or any release of retainage with respect to the contract. These waivers by the Contractor are a material inducement to County to enter into this contract, are reflected in Contractor's compensation, and have been mutually negotiated by the parties.

**BOARD OF COUNTY COMMISSIONERS
OF COWLITZ COUNTY, WASHINGTON**

Richard R. Dahl, Chairman

Name of Contractor

Steve Rader, Commissioner

Signatory Authorized by Firm Bylaws
to Bind Contractor

Steven L. Ferrell, Commissioner

Title

ATTEST:

Kelly Grayson, Clerk of the Board

Date

Date

Washington Contractor's Registration Number

APPROVED AS TO FORM:

Civil Deputy Prosecuting Attorney

[Executed copies shall be delivered each to County, Contractor, Surety and Insurance Company]

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Contractor and Surety, a corporation, organized and existing under and by virtue of the laws of the State of Washington, are jointly and severally obligated to Cowlitz County, State of Washington, in the penal sum of \$_____, for the payment of which sum we jointly and severally bind ourselves and our heirs, executors, administrators, and assigns, and successors and assigns, firmly in accordance with the following provisions:

The Contractor has entered into or is about to enter into a contract with Cowlitz County for the following project: **GARLOCK ROAD DELAMETER CREEK FISH PASSAGE PROJECT.**

Now, if the Contractor fully and timely performs all terms, conditions and requirements of the contract in all respects, including all warranty provisions; and pays all laborers, mechanics, subcontractors, and materialmen, and all persons who supply such person or persons, or subcontractors, with provisions and supplies for the above project; and defends and indemnifies Cowlitz County against any direct or indirect loss, damage, liability, judgments, and costs, to the extent required by the contract; then this obligation shall be void; otherwise it shall remain in full force and effect.

Provided, however, that the conditions of this obligation shall not apply to any money loaned or advanced to the Contractor or to any subcontractor or other person in the performance of any such work.

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

Any judgment against Cowlitz County that relates to or is covered by the contract or this bond shall be conclusive against the Contractor and the Surety, not only as to the amount of damages but also as to their liability if reasonable notice of the pendency of the suit has been given.

Name of Contractor

Name of Surety

Authorized Signature

Authorized Signature*

Title

Title

Date

Date

* Attach Power of Attorney

SPECIAL PROVISIONS

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 WSDOT GSP)

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

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 *** Clearing and grubbing, installation of temporary stream diversion, shoring, excavation, removal of existing concrete box culvert, steel pile driving, reinforced concrete pile caps and wingwalls, installation of a 55-foot span steel structural plate arch culvert, roadway reconstruction, streambed reconstruction, installation of salvaged logs, seeding and mulching, plantings, *** and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

(*****)

Appendices. The following appendices are hereby provided for the Contractor's information:

- Appendix A – Topographic Survey**
- Appendix B – HPA from Washington State Department of Fish and Wildlife**
- Appendix C – Nationwide Permit 14 from US Army Corps of Engineers**
- Appendix D – Construction Stormwater General Permit from Washington State Department of Ecology**
- Appendix E – Geotechnical Report**
- Appendix F – Applicable Standard Plans**

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.

(*****)

"Contracting Agency" means Cowlitz County.

"Engineer" or "Project Engineer" means the Cowlitz County Engineer.

"Secretary" or "Secretary of Transportation" means the Board of County Commissioners of Cowlitz County.

"State" or "State of Washington" means Cowlitz County, except when referring to state departments other than the department of transportation, and except when referring to state publications, laws, etc.

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")	2	Furnished automatically upon award.
Contract Provisions	2	Furnished automatically upon award.
Large plans (e.g., 22" x 34")	3	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.

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 ***5*** business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.

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

Section 1-02.6 is supplemented with the following:

Subcontractor's List

(November 25, 2024 APWA GSP 1-02.6, Option C)

The fourth paragraph of Section 1-02.6 is revised to read:

The Bidder shall submit with the Bid the completed Subcontractor List included in the Contracting Agency Proposal Package. If a Subcontractor List Form is not included in the package, use DOT Form 271-015LP. The Form shall contain the following:

1. Subcontractors who will perform the work of structural steel installation, rebar installation, heating, ventilation, air conditioning, and plumbing as described in RCW 18.106 and electrical as described in RCW 19.28,
2. The Work those subcontractors will perform on the Contract as described in RCW 39.30.060; and
3. No more than one subcontractor for each category of work identified, except, when subcontractors vary with Bid alternates, in which case the Bidder shall identify which subcontractor will be used for which alternate.

Preparation of Proposal

November 25, 2024 APWA Option B

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.

1-02.9 Delivery of Proposal

(July 8, 2024 APWA GSP, Option A)

Delete this section and replace it with the following:

DBE DOCUMENT SUBMITTAL REQUIREMENTS

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 (WSDOT 272-056)
- DBE Written Confirmation Document (WSDOT 422-031) from each DBE firm listed on the Bidder's completed DBE Utilization Certification
- Good Faith Effort (GFE) Documentation (if applicable)
- DBE Bid Item Breakdown (WSDOT 272-054)

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 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 272-54)

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

Section 1-02.12 is supplemented with the following:

Date Of Opening Bids

Sealed bids are to be received at the following location prior to the time specified in the CALL FOR BIDS:

Cowlitz County Department of Public Works
Attn: County Engineer
1600 13th Avenue South
Kelso WA 98626

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.

1-02.15 Pre-Award Information

(December 30, 2022 APWA GSP)

Revise this section to read:

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

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

1-03 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
(January 4, 2024 APWA GSP Option B)

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 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, 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 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.

1-04 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.

(*****)

Interpretation of Contract Documents. The Contractor shall provide any work or materials clearly implied in the contract even if the contract documents do not mention it specifically. If the contract documents use words that are not defined therein but have a commonly accepted technical or trade meaning, the words shall be understood in accordance with that meaning.

1-04.4 Changes

(January 19, 2022 APWA GSP)

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

1-05 CONTROL OF WORK

1-05.1 Authority of The Engineer

Section 1-05.1 is supplemented with the following:

(*****)

Additional Directions from Engineer. If the Engineer determines that the provisions in the contract documents are not sufficiently clear to permit the Contractor to proceed with the work, the Engineer shall, either on his own or upon written request from the Contractor, furnish such additional written directions as he deems appropriate. When the Contractor makes such a request, it must do so in writing and must allow ample time to permit the Engineer to review the request and prepare any additional directions before the Contractor begins any work affected by the request. Any additional directions issued by the Engineer shall not be inconsistent with the contract documents and shall have the same force and effect as if contained in the contract documents.

1-05.3 Plans and Working Drawings

Section 1-05.3 is supplemented with the following:

Shop Drawings. The Contractor shall submit five copies of all shop drawings and samples to the Engineer for review and approval in accordance with the schedule of shop drawing submissions approved at the Pre-Construction Conference. Contractor shall check and verify all field measurements prior to submitting shop drawings to Engineer for review and approval, shop drawings shall have been checked by and stamped with the approval of the Contractor and identified as the Engineer may require. The data shown on the Shop Drawings will be complete with respect to dimensions, design criteria, material or construction and like information to enable the Engineer to review the information as required.

At the time of each submission, the Contractor shall, in writing, call the Engineer's attention to any deviations that the Shop Drawings or Samples may have from the requirements of the Contract Documents.

The Engineer will review and approve with reasonable promptness shop drawings and samples, but the Engineer's review and approval shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. The Contractor shall make any corrections required by the Engineer and shall return the required number of corrected copies of shop drawing and resubmit new samples for review and approval. The Contractor shall direct specific attention, in writing, to revisions other than the corrections called for by the Engineer on previous submittals. The Contractor's stamp of approval on any shop drawings or samples shall constitute a representation to Owner and Engineer that Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data or assumes full responsibility for doing so, and that the Contractor has reviewed or coordinated each shop drawing or sample with the requirements of the work and the Contract Documents.

Where a shop drawing or sample is required by the Specifications, no related work shall be commenced until the submittal has been reviewed and approved by the Engineer.

The Engineer's review and approval of shop drawings or samples shall not relieve the Contractor from responsibility for any deviations from the Contract Documents unless the Contractor has, in writing, called the Engineer's attention to such deviation at the time of submission and the Engineer has given written concurrence and approval to the specific deviation, nor shall any concurrence or approval by the Engineer relieve the Contractor from responsibility for errors or omissions in the shop drawings.

The following is a list of products and materials for which the Contractor shall submit shop drawings or samples. The list may not be inclusive and is subject to revision by the Engineer and Owner.

- 1.) Steel Reinforcing Bars
- 2.) Steel Piling

(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:

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

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 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 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:

	<u>Vertical</u>	<u>Horizontal</u>
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, therefore.

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

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

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

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently,

and without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

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

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

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

1-05.11(3) Operational Testing

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

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

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's warranties 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.

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.

1-06 CONTROL OF MATERIAL

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.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws To Be Observed

Section 1-07.1 is supplemented with the following:

(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 Sales Tax

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).

1-07.3(2) Merchantable Timber Requirements

(April 7, 2008)

Section 1-07.3(2) is supplemented with the following:

This project contains merchantable timber.

Export Restrictions - DOT Form 410-100, Purchaser Certification for Export Restricted Timber, will be included when the contract is sent to the Contractor for execution. The form shall be completed and signed by the Contractor. The Contractor shall send the original signed form and one copy of the signed form directly to the Washington State Department of Revenue at the address on the form. The Contractor shall send one signed copy along with the other documents required by Section 1-03.3 to the Contracting Agency with the executed contract.

State Tax Requirements - It shall be the Contractor's responsibility to pay to the State Department of Revenue all taxes on harvested timber.

1-07.6 Permits and Licenses

Section 1-07.6 is supplemented with the following:

(January 2, 2018)

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.

*** HPA from Washington Department of Fish and Wildlife
Nationwide Permit 14 from the U.S. Army Corps of Engineers ***

1-07.7 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.

1-07.8 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.

1-07.9(3) Apprentices

*(*****)*

Section 1-07.9(3) is supplemented with the following:

Apprentice Utilization

This Contract includes an Apprentice Utilization Requirement. No less than 15 percent of project Labor Hours shall be performed by Apprentices.

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 Requirement is the Apprentice labor hours expressed as a percentage of the project Labor Hours.
3. Good Faith Effort (GFE) is used if the Contractor doesn't meet the Apprentice Utilization Requirement. It describes the Contractor's efforts to meet the Apprentice Utilization Requirement including but not necessarily limited to the specific steps as described elsewhere in this specification.
4. Labor Hours are the total hours performed by all workers receiving an hourly wage who are directly employed upon the project including hours performed by workers employed by the Contractor and all subcontractors. Labor Hours do not include hours performed by foremen, superintendents, owners, and workers who are not subject to prevailing wage requirements.
5. State-approved Apprenticeship Training Program is an apprenticeship training program approved by the Washington State Apprenticeship Council.

Electronic Reporting

The Contractor shall use the State L&I online Prevailing Wage Intent & Affidavit (PWIA) System to submit the "Apprentice Utilization Plan" and "Good Faith Effort" documentation. 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 execution, 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 and be updated and resubmitted as the Work progresses or when ordered by the Engineer.

If the Contractor is unable to demonstrate ability to meet the Apprentice Utilization Requirement in their Apprentice Utilization Plan, they must submit GFE documentation to the State L&I online PWIA System for review and comment with their Apprentice Utilization Plan. The Contractor shall actively seek out opportunities to meet the Apprentice Utilization Requirement during the construction Work.

Contacts

The Contractor may obtain information on State-approved Apprenticeship Training Programs by contacting the Department of Labor and Industries at:

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

Compliance

In the event that the Contractor is unable to achieve the Apprentice Utilization Requirement, the Contractor shall submit to the State L&I online PWIA System GFE documentation for review and approval. The GFE documentation shall be submitted after Substantial Completion but no later than 30 days after Physical Completion. If GFE documentation was previously submitted as part of the

Apprentice Utilization Plan, it shall be updated and resubmitted after Substantial Completion but no later than 30 days after Physical Completion.

If the Contractor fails to submit GFE documentation or if the Engineer does not approve the GFE, the Contractor will be subject to disciplinary actions as allowed under WAC 468-16-180 and RCW 39.12.055.

Good Faith Efforts

The GFE shall describe in detail why the Contractor is not or was not able to attain the Apprentice Utilization Requirement. The GFE documentation shall address one or more of the following areas:

1. Correspondence on solicitation of Apprentices from a State-approved Apprenticeship Training Program(s), and the response from the solicited State-Approved Apprenticeship Training Program(s) when there is a lack of availability of Apprentices.
2. Provide documentation that shows Contract requirements for TERO, Special Training or Disadvantage Business Enterprise requirements affect the ability to obtain Apprentice Labor Hours on the Contract.
3. Provide documentation demonstrating what efforts the Contractor has taken to require subcontractors to solicit and employ Apprentices. Documentation could be posters placed on site, emphasis in subcontracts about employing Apprentices, letters, memos or other correspondence from Contractor to subcontractor that put an emphasis on employing Apprentices.

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

Payment

All costs incurred by the Contractor for complying with this specification shall be included in the Contract prices for the Bid items of Work involved.

1-07.13 Contractor's Responsibility for Work

(*****)

1-07.13(4) Repair of Damage

Section 1-07.13(4) is revised to read:

The Contractor shall promptly repair all damage to either temporary or permanent work as directed by the Engineer. For damage qualifying for relief under Sections 1-07.13(1), 1-07.13(2) or 1-07.13(3),

payment will be made in accordance with Section 1-04.4. Payment will be limited to repair of damaged work only. No payment will be made for delay or disruption of work.

(*****)

1-07.14 Responsibility for Damage

Section 1-07.14 is supplemented with the following:

Indemnification. References in Standard Specification 1-07.14 to the Contractor's "agents" shall be understood to include the Contractor's subcontractors. The Contractor's responsibilities under Standard Specification 1-07.14 shall survive the termination or completion of the contract.

Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

(October 3, 2022)

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

Public and private utilities, or their Contractors, will furnish all work necessary to adjust, relocate, replace, or construct their facilities unless otherwise provided for in the Plans or these Special Provisions. Such adjustment, relocation, replacement, or construction will be done during the prosecution of the work for this project. It is anticipated that utility adjustment, relocation, replacement, or construction within the project limits will be completed as follows:

*** After the Contractor has completed clearing and grubbing, Comcast will install temporary communications facilities around the project area and deactivate the existing underground communications lines that cross over the existing concrete box culvert.

After the new culvert is installed and backfilled, Comcast will install permanent underground communications lines over the completed culvert and along the roadway to connect to the existing Comcast facilities near the ends of the project area. ***

The Contractor shall attend a mandatory utility preconstruction meeting with the Engineer, all affected subcontractors, and all utility owners and their Contractors prior to beginning onsite work.

The following addresses and telephone numbers of utility companies or their Contractors that will be adjusting, relocating, replacing or constructing utilities within the project limits are supplied for the Contractor's use:

**Power: Cowlitz Public Utility District
961 12th Avenue
Longview, Washington 98632
(360) 577-7546

Telephone: Lumen Technologies
4501 NE Minnehaha St, Bldg II

Vancouver, WA 98661
(564) 888-2024

Cable: Comcast
6916 NE 40th Street
Vancouver, WA 98661
(360) 891-3204**

(*****)

The above are all the utilities known by the County to be within the location of the planned excavation or project area. With respect to any utilities other than those identified above, which are not known to the County, the Contractor shall bear full responsibility. Additionally, the Contractor shall take all steps required to comply with RCW Chapter 19.122. Once marked by the owner of the underground facility, the Contractor is responsible for maintaining the markings, per RCW 19.122.030.

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)D Excess or Umbrella Liability

(January 4, 2016 APWA GSP)

The Contractor shall provide Excess or Umbrella Liability insurance with limits of not less than \$5,000,000 million each occurrence and annual aggregate. This excess or umbrella liability coverage shall be excess over and as least as broad in coverage as the Contractor's Commercial General and Auto Liability insurance.

All entities listed under 1-07.18(2) of these Special Provisions shall be named as additional insureds on the Contractor's Excess or Umbrella Liability insurance policy.

This requirement may be satisfied instead through the Contractor's primary Commercial General and Automobile Liability coverages, or any combination thereof that achieves the overall required limits of insurance.

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.

1-07.23 Public Convenience And Safety

1-07.23(1) Construction Under Traffic

The second paragraph of Section 1-07.23(1) is supplemented with the following:

(*****)

The Contractor shall limit the total delay to the public, to a maximum of *** 20 *** minutes, during travel through the project. If the delay becomes greater than *** 20 *** minutes, the Contractor shall immediately begin to take action to cease the operations that are causing the delays. If the *** 20 *** minute delay limit has been exceeded, as determined by the Engineer, the Contractor shall provide to the Engineer, a written proposal to revise his work operations to meet the *** 20 *** minute limit. This proposal shall be approved by the Engineer prior to resuming any work requiring traffic control.

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

(*****)

Road Closure. The Contractor may close Garlock Road to traffic for one continuous period not to exceed 80 working days. Access shall be maintained at all times for local traffic and all existing driveways.

The Contractor shall provide two (2) weeks’ notice to the Engineer prior to the start of the proposed road closure. The Contractor shall provide and maintain all temporary traffic control devices and signs adjacent to the work area.

1-07.24 Rights of Way

(July 23, 2015 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.

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, 2024 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the

Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To 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 10 am 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.

1-08.0(3) Reimbursement for Overtime Work of Contracting Agency Employees

(*****)

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

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

1-08.1 Subcontracting

Section 1-08.1 is supplemented with the following:

(*****)

The Contractor shall ensure that each subcontractor (in any tier) agrees in writing to: (a) perform its work in strict compliance with these contract documents; and (b) defend, indemnify, and hold harmless Cowlitz County (and its officials, employees, and agents) from claims and liabilities arising from the subcontractor's acts and omissions, to the same extent provided in Standard Specification 1-07.14 for the Contractor. Upon request, the Contractor will promptly provide the Engineer with a copy of any subcontract.

The Contractor shall include the language of this section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.

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

1. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable, have:
 - a. Have Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RCW;
 - b. A Washington Employment Security Department number, as required in Title 50 RCW;
 - c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
 - d. An electrical contractor license, if required by Chapter 19.28 RCW;
 - e. An elevator contractor license, if required by Chapter 70.87 RCW.
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).

1-08.3 Progress Schedule.

Add the following to Section 1-08.3:

(*****)

A critical path schedule shall be submitted by the Contractor for review and approval by the Engineer prior to the preconstruction meeting. Work shall not begin until the critical path schedule is approved. Any deviation from the approved critical path must be submitted to the Engineer with a modified critical path schedule two (2) working days prior to the proposed deviation. Approval must be received from the Engineer prior to proceeding with the deviation. Costs for the critical path schedule shall be included in the bid items of this contract and will not be paid for individually.

The construction activities shall proceed as follows unless otherwise approved by the Engineer:

1. Clearing and grubbing, installation of temporary erosion control.
2. Comcast will install temporary communications facilities around the project area, and deactivate the existing underground communications lines that cross over the existing concrete box culvert.
3. Excavate around existing concrete box culvert (outside the ordinary high water line).
4. Install temporary creek diversion.
5. Complete excavation for foundations.
6. Drive steel piles.

7. Place pre-bored piles in concrete.
8. Construct reinforced concrete pile caps.
9. Installation of Agency Supplied Buried Structure.
10. Construct reinforced concrete headwalls and wingwalls.
11. Backfill new culvert, reconstruct streambed, and place large woody material.
12. After the new culvert is installed and backfilled, Comcast will install permanent underground communications lines over the completed culvert and along the roadway to connect to the existing Comcast facilities near the ends of the project area.
13. Complete roadway reconstruction including hot mix asphalt paving.
14. Install beam guardrail.
15. Landscaping.

1-08.5 Time for Completion

Section 1-08.5 is supplemented with the following:

(March 13, 1995)

This project shall be physically completed within *** 80 *** working days.

1-08.9 Liquidated Damages

(March 3, 2021 APWA GSP, Option B)

Revise the second and third paragraphs to read:

Accordingly, the Contractor agrees:

1. To pay (according to the following formula) liquidated damages 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.

Liquidated Damages Formula

$$LD=0.15C/T$$

Where:

LD = liquidated damages per working day (rounded to the nearest dollar)

C = original Contract amount

T = original time for Physical Completion

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, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

1-09 MEASUREMENT AND PAYMENT

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 B)

Delete the fourth paragraph and replace it with the following:

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

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

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

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

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

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

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

(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.

Section 1-09.9 is supplemented with the following:

(*****)

Partial Payments. Partial payments shall be made once each month, based on estimates prepared by the Engineer. The Contractor shall prepare a document detailing work and labor performed and material furnished during each calendar month, and shall deliver the document to the Engineer by the fifth day of the following month. The documentation shall be in a format prescribed by the Engineer. If the Contractor's documentation is timely submitted, the County Auditor will issue a warrant payable to the Contractor on the last working day of the month, based on the estimate prepared by the Engineer.

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.

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.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.2 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>

1-10.3 Traffic Control Labor, Procedures, and Devices

1-10.3(3)A Construction Signs

(*****)

The first paragraph of Section 1-10.3(3)A is revised to read as follows:

All signs required by the approved traffic control plan(s) as well as any other appropriate signs prescribed by the Engineer shall be furnished by the Contractor. The Contractor shall provide the posts or supports and erect and maintain the signs in a clean, neat, and presentable condition until the necessity for them has ceased. When the need for these signs has ceased, the Contractor, upon approval of the Engineer, shall remove all signs, posts, and supports from the project and they shall remain the property of the Contractor. There shall be no intermixing of signs with non-fluorescent orange reflective sign sheeting and signs with fluorescent orange reflective sign sheeting on the same signpost.

The third paragraph of Section 1-10.3(3)A is supplemented with the following:

The Contractor shall furnish, install, and remove all construction signs and all cones, barricades, flashers, and other traffic control devices of a temporary and portable nature. The Contractor shall maintain all signs and other traffic control devices.

"MOTORCYCLES USE EXTREME CAUTION" signs per W21-1701 of the WSDOT Sign Fabrication Manual shall be supplied by the Contractor if there will be grooved pavement, abrupt lane edges, steel plates or gravel-or-earth surfaced roadways within the project limits. The Contractor shall include the signs in the Traffic Control Plan and install the signs in advance of the work zone and maintain the signs for

as long as the above conditions are present. These signs are in addition to any other signs stating the condition of the roadway. MOTORCYCLES USE EXTREME CAUTION” signs shall be considered Class B signs.

The seventh paragraph of Section 1-10.3(3)A is revised to read as follows:

Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the Engineer deems to be unacceptable while their use is required on the project, shall be replaced by the Contractor without additional compensation.

1-10.4(1) Lump Sum Bid for Project (No Unit Items)

Section 1-10.4(3) is supplemented with the following:

(*****)

The bid proposal contains the item “Project Temporary Traffic Control,” lump sum. The provisions of Section 1-10.4(1), and Section 1-10.5(1) shall apply.

BID ITEMS

BID ITEM 1: MISCELLANEOUS CONSTRUCTION

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 1-09.6, except as modified below.

1-09.6 Force Account

Insert the following paragraph before the first paragraph of Section 1-09.6, which begins "The terms of the contract or of a change order may call...":

The Miscellaneous Construction bid item has been included for any additional work directed by the Engineer that is not required by the original contract. The amount indicated in the proposal for this bid item is to provide a common bid amount. The actual amount paid under this bid item may vary from no payment to the full amount of the bid item.

Add the following to Section 1-09.6:

In lieu of the preceding prescribed method of determining payment for force account work, payment may be made at unit prices or lump sum prices agreed to by the Engineer and the Contractor, prior to beginning the Miscellaneous Construction work.

BID ITEM 2: STRUCTURE SURVEYING

BID ITEM 3: ROADWAY SURVEYING

These bid items shall be accomplished in accordance with the Plans, Standard Specification Section 1-05.4 and the Special Provisions for Section 1-05.4.

BID ITEM 4: MOBILIZATION

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 1-09.7.

BID ITEM 5: PROJECT TEMPORARY TRAFFIC CONTROL

This bid item shall be accomplished in accordance with the Plans and Standard Specification Sections 1-07 and 1-10 and the Special Provisions for Section 1-10.

BID ITEM 6: CLEARING AND GRUBBING

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 2-01 except as modified below:

2-01.1 Description

Delete paragraph one of Section 2-01.1, which begins "The Contractor shall clear..." and replace with the following:

(*****)

The Contractor shall clear, grub, and clean the entire limits of clearing within the project area, unless otherwise noted or specified. The Contractor shall also clear, grub and clean areas designated to receive fill materials, as specified herein. Existing trees outside the limits of clearing and specific improvements marked on the plans as remaining shall be protected from damage.

Delete paragraph two of Section 2-01.1 which begins "Clearing" means removing and..." and replace with the following:

(*****)

"Clearing" means removing and disposing of all unwanted material from the surface, as determined by the Engineer, such as trees, brush, vines, down timber, lumber, concrete, miscellaneous trash, and other.

2-01.2 Disposal of Usable Material and Debris

Add the following to Section 2-01.2:

(*****)

Trees shown on the Plans to be used in the Large Woody Material bid item shall be salvaged. These trees shall be removed from the ground, keeping the rootwad intact with the stem and meeting the length requirements shown on the Plans. Dirt, rocks and debris on the rootwads shall be removed as much as possible. No waste site has been provided by the County for this project.

2-01.5 Payment

Add the following to the third paragraph of Section 2-01.5 which begins "the unit Contract price per acre...":

(*****)

It has been calculated that there are approximately **1.1** acres of Clearing and Grubbing required for this project. This value has been provided for the purposes of bidding only. No adjustment to this lump sum bid item will be made.

BID ITEM 7: REMOVAL OF STRUCTURES AND OBSTRUCTIONS

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 2-02, except as modified below:

2-02.1 Description

Add the following to Section 2-02.1:

(*****)

Removal of Structures and Obstructions shall consist of the following work:

1. Remove existing concrete box culvert including wingwalls and aprons.
2. Remove existing beam guardrail including terminals and anchors.
3. Remove existing 12-inch diameter corrugated metal culvert.
4. Remove 593 feet of existing fencing.
5. Remove existing pavement.

2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

The Contractor shall remove **358** lineal feet of guardrail including posts and **4** guardrail anchors, all within the project limits. Existing beam guardrail and guardrail anchors are to be salvaged and the contractor shall deliver them to Cowlitz County Castle Rock Area Shop, 111 Gassman Road, Castle Rock. All guardrail determined to be non-salvageable by the Engineer shall become the property of the Contractor and removed from the project in accordance with this section.

2-02.3(3) Removal of Pavement, Sidewalks, Curbs and Gutters

(*****)

Revise Item 2. of Section 2-02.3(3) which begins "Material that is.." to read as follows:

2. Material from excavated pavements shall be disposed of in accordance with applicable local and state regulations.

2-02.5 Payment

Add the following to Section 2-02.5:

(*****)

The lump sum contract price shall be full pay for excavating, loading, hauling, placing, or otherwise disposing of all items of this bid item designated for removal, salvage, or abandonment.

The contract price shall also include all backfilling as is necessary to bring the voids left by the removal

of the items specified above to match the elevation of the sub-grade or surrounding grade.

It has been calculated that there are approximately **1,202** square yards of existing asphalt concrete pavement located within the project limits that are designated for removal in the Removal of Structure and Obstruction bid item. This value has been provided for the purposes of bidding only. No cost adjustment to the lump sum bid item for Removal of Structure and Obstruction will be made.

BID ITEM 8: ROADWAY EXCAVATION, EMBANKMENT AND DISPOSAL INCLUDING HAUL

BID ITEM 9: ROCK EXCAVATION INCLUDING HAUL

BID ITEM 10: UNSUITABLE FOUNDATION EXCAVATION INCLUDING HAUL

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 2-03, except as modified below. The bid quantities listed for these items are approximate and are for the purposes of bidding only. Overruns and underruns in these bid items shall not be cause for adjustment in the unit prices. Section 1-04.6 "Increased or Decreased Quantities" does not apply to these bid items.

2-03 ROADWAY EXCAVATION AND EMBANKMENT

2-03.1 Description

Delete paragraph one of Section 2-03.1 which begins "The work described in..." and replace with the following:

(*****)

The work described in this section, regardless of the nature or type of materials encountered, includes excavation and grading the roadway, excavation below grade, excavating channels and ditches, placement and compaction of excavated materials as directed by the Engineer, and disposal of all excess material. These activities may be performed in making cuts, embankments, slopes, roadway ditches, parking areas, driveways, and in completing other related work.

It is the County's intent to maximize use of the material excavated in the Roadway Excavation, Embankment and Disposal Including Haul and the Rock Excavation Including Haul bid items in the construction of embankments in lieu of using the Structural Fill Including Haul, or other embankment material specifications noted in this contract.

2-03.3 Construction Requirements

Add the following to Section 2-03.3:

2-03.3(14) Embankment Construction

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

Section 2-03.3(14)M is supplemented with the following:

(*****)

Channel excavation shall be accomplished in accordance with the permits included in the appendices.

2-03.3(19) Removal of Pavement, Sidewalks, and Curbs

Removal of pavement, sidewalks, curbs, or other similar materials that lie within the limits of excavation shall be included in the unit bid price for this bid item and shall be completed in accordance with Section

2-02.3(3) unless specifically identified for removal under the Removal of Structures and Obstructions bid item of this document.

Add the following to Section 2-02.3(3) which is referenced by Section 2-03.3(19):

(*****)

Revise Item 2. of Section 2-02.3(3) which begins "Material that is.." to read as follows:

2. Material from excavated pavements shall be disposed of in accordance with applicable local and state regulations.

2-03.3(2) Rock Cuts

Add the following to Section 2-03.3(2):

(*****)

If rock is encountered, it may not be suitable for excavation by normal means. Normal means is defined as excavation with a hydraulic excavator with a minimum operating weight of 80,000 pounds and a 50,000-pound bucket digging force with toothed bucket. Material not suitable for excavation by normal means must be excavated with means other than the use of explosives. The Contractor shall make his own determination of equipment required to perform the work. No additional compensation other than provided herein will be allowed due to the presence of rock. Only material not suitable for excavation by normal means shall be considered "Rock Excavation". The Engineer shall determine if material excavated will be paid under the "Roadway Excavation, Embankment and Disposal Including Haul" or "Rock Excavation Including Haul" bid items.

2-03.3(3) Excavation Below Grade

Add the following after the second paragraph of Section 2-03.3(3) which begins "If the Contractor uses...":

(*****)

Existing culverts, storm drains, and drainage structures located within the horizontal limits of the excavation shall be removed, backfilled, compacted, or abandoned as specified, unless otherwise noted on the plans.

Where shown on the Plans or where designated by the Engineer, existing culverts shall be plugged on both the inlet and outlet ends with Class 3000 concrete. Care shall be used in placing the concrete in the culvert to see that the opening of the pipe is completely filled and thoroughly plugged. A minimum linear plug length of two pipe diameters is required.

2-03.3(7)A General

Delete the text of Section 2-03.3(7)A which begins "The Contractor shall haul..." and replace with the following:

(*****)

The Contractor shall haul all suitable excavation, as determined by the Engineer, to the nearest area designated to receive embankment material. The excavated materials for this project not considered

by the Engineer to be acceptable for embankment, or determined to be in excess of the embankment materials required for this work, shall become the property of the Contractor to be disposed of in accordance with Section 2-03.3(7)C. No waste site has been provided by the County.

The disposal of waste or excess materials from this project on private property requires a permit(s) from Cowlitz County Building and Planning Department. This includes the temporary stockpiling and processing/crushing of material (soil, rock, etc.). No adjustment in the time of completion will be made for the time required to obtain permits and/or the failure to obtain or qualify for a permit. It is recommended that the contractor contact the Building and Planning Department early in the bidding process to review potential sites to avoid problems and delays.

2-03.4 Measurement

Add the following to Section 2-03.4:

(*****)

Roadway excavation, embankment and disposal including haul - by the cubic yard. The quantities indicated on the proposal include **523** cubic yards of roadway excavation, **460** cubic yards of channel excavation, an estimated **325** cubic yards of cut for driveway excavation and an estimated **42** cubic yards of over excavation. The actual over excavation quantity will be determined by neat line measurement. All other materials will be measured in-place as determined by neat-line modeling.

Rock Excavation Including Haul – by the cubic yard. The rock excavation quantity will be determined by neat line measurement. Only material determined to be not suitable for excavation by normal means will be measured for the bid item Rock Excavation Including Haul.

Unsuitable Foundation Excavation Including Haul – by the cubic yard. The unsuitable foundation excavation quantity will be determined by neat line measurement.

2-03.5 Payment

Add the following to Section 2-03.5:

(*****)

"Roadway Excavation, Embankment and Disposal Including Haul", per cubic yard.

The unit contract price per cubic yard for Roadway Excavation, Embankment and Disposal Including Haul shall be full pay for excavating, loading, hauling, placing, compacting, or otherwise disposing of the materials as directed by the Engineer. All work required in removal, backfilling, plugging or abandonment of existing culverts or structures shall be included in the unit bid price of this bid item, unless specifically identified for removal under the Removal of Structures and Obstructions bid item of this document.

When the Engineer orders excavation below subgrade before subgrade preparation is complete, unit prices for Roadway Excavation, Embankment and Disposal Including Haul shall apply.

It is anticipated that up to **1,000** cubic yards of the material excavated in this bid item may be determined suitable by the Engineer to be used in the construction of embankments in lieu of using the

Structural Fill Including Haul or other embankment material specifications noted in this contract. This value has been provided for the purposes of bidding only. No adjustment to the unit price of this bid item will be made.

“Rock Excavation Including Haul”, per cubic yard.

The unit contract price per cubic yard for Rock Excavation Including Haul shall be full pay for fracturing, excavating, loading, hauling, placing, compacting, or otherwise disposing of the materials as directed by the Engineer.

It is anticipated that up to **100%** of the material excavated in this bid item may be determined suitable by the Engineer to be used in the construction of embankments in lieu of using the Structural Fill Including Haul or other embankment material specifications noted in this contract. This value has been provided for the purposes of bidding only. No adjustment to the unit price of this bid item will be made.

“Unsuitable Foundation Excavation Including Haul”, per cubic yard.

The unit contract price per cubic yard for Unsuitable Excavation Including Haul shall be full pay for excavating, loading, and disposing of the materials as directed by the Engineer.

BID ITEM 11: STRUCTURE EXCAVATION CLASS A INCL. HAUL

BID ITEM 12: SHORING OR EXTRA EXCAVATION CLASS A

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 2-09 except as modified below:

2-09 STRUCTURE EXCAVATION

2-09.3 Construction Requirements

2-09.3(1) General Requirements

Section 2-09.3(1) is supplemented with the following:

(*****)

Explosives shall not be used for structure excavation.

2-09.3(1)D Disposal of Excavated Material

Section 2-09.3(1)D is supplemented with the following:

(*****)

No waste site has been provided by the County. The disposal of waste or excess materials from this project on private property requires a permit(s) from Cowlitz County Building and Planning Department. This includes the temporary stockpiling and processing/crushing of material (soil, rock, etc.). No adjustment in the time of completion will be made for the time required to obtain permits and/or the failure to obtain or qualify for a permit. It is recommended that the contractor contact the Building and Planning Department early in the bidding process to review potential sites to avoid problems and delays.

2-09.3(1)E Backfilling

Section 2-09.3(1)E is supplemented with the following:

(*****)

The Contractor shall place select backfill material within the structure excavation when so specified in the Plans.

Include the following highlighted section if lump sum is used.

2-09.4 Measurement

Add the following to Section 2-09.4:

“Structure Excavation Class A, incl. Haul”, if the Proposal Form contains “Structure Excavation Class A, incl. Haul, Lump Sum”, no specific unit of measurement shall apply to the lump sum item of structure excavation Class A. Horizontal, upper and lower limits specified in Section 2-09.4 shall apply to this bid item.”

2-09.5 Payment

Add the following to Section 2-09.5:

“Structure Excavation Class A Incl. Haul”, Lump Sum

Delete the seventh sentence of the first paragraph of Section 2-09.5 which begins “If the Engineer orders the Contractor to excavate...”, and replace with the following:

(*****)

If the Engineer orders the Contractor to excavate below the lower limits of structure excavation, the quantity of excavation below the lower limits shall be paid under the bid item Unsuitable Foundation Excavation Including Haul.

Add the following to 2-09.5:

(*****)

The lump sum Contract price for Structure Excavation Class A shall include excavation of all material including rock and backfilling the excavation. This includes providing, hauling, placing and compacting select backfill materials specified in the Plans.

BID ITEM 13: TRIMMING AND CLEANUP

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 2-11.

BID ITEM 14: CONSTRUCTION GEOTEXTILE FOR SEPARATION

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 2-12, except as modified below. The bid quantity listed for this item is approximate and is for the purposes

of bidding only. Overruns and underruns in this bid item shall not be cause for adjustment in the unit price. Section 1-04.6 "Increased or Decreased Quantities" does not apply to this bid item.

2-12 CONSTRUCTION GEOTEXTILE

2-12.2 Materials

Add the following to Section 2-12.2:

(*****)

Construction Geotextile for Separation shall be nonwoven.

2-12.3 Construction Requirements

Add the following to Section 2-12.3:

(*****)

Geotextile shall be placed with the long axis parallel to the centerline of the road. Overlaps of the fabric shall be pinned with sod pins on intervals determined for the site by the Engineer. Pleats for changing directions of the fabric roll shall be pinned. Additional sod pins shall be used to prevent displacement of the fabric by the wind or other conditions. Fabric placed over benches cut in a slope shall be pinned at the bottom of the vertical cuts at 10-foot intervals, or as otherwise directed by the Engineer.

2-12.4 Measurement

Delete paragraph one of Section 2-12.4 which begins "Construction geotextile, with the...", and replace with the following:

(*****)

Construction geotextile will be measured by the square yard of material installed.

BID ITEM 15: STRUCTURAL FILL INCLUDING HAUL

This bid item shall be accomplished in accordance with the Plans, Standard Specifications and the following Special Provisions Section 2-13. The bid quantity listed for this item is approximate and is for the purposes of bidding only. Overruns and underruns in this bid item shall not be cause for adjustment in the unit price. Section 1-04.6 "Increased or Decreased Quantities" does not apply to this bid item.

2-13 STRUCTURAL FILL

2-13.1 Description

The work described as Structural Fill Including Haul shall consist of providing from off-project sources, a manufactured rock meeting the requirements below and placing, shaping, and compacting those materials into the roadway embankment, as is indicated on the drawings.

It is the County's intent to maximize use of the material excavated in the Roadway Excavation, Embankment and Disposal Including Haul, and Structure Excavation Class A Including Haul bid items in the construction of embankments in lieu of using the material noted in this bid item.

2-13.2 Materials

Aggregate for Structural Fill shall meet the requirements of Section 9-03.10, Aggregate for Gravel Base

with the following modifications:

In lieu of the grading requirements specified in Section 9-03.10, grading shall conform to the following gradation:

Sieve Size	Percent Passing by Weight
3-inch square	100
1-inch square	45-75
¼-inch square	15-35
U.S. No. 200	5 max.

In addition to the requirements specified in Section 9-03.10, Structural Fill shall meet the following requirements:

70% of the aggregate retained on each of the 1-inch square and ¼-inch square sieves shall have at least one fractured face.

Structural Fill shall consist of unweathered, hard, angular, durable, free-draining material that is visibly well graded from course to fine.

2-13.3 Construction Requirements

Embankments shall be constructed in lifts not exceeding 8 inches. Verification of compaction for Structural Fill shall be accomplished by routing a loaded 10-yard minimum capacity dump truck over the compacted material in the presence of the Engineer. Compaction shall be determined to be adequate if there is no visual deflection of the material under the load. In locations where there is insufficient room for a dump truck, compaction shall be accomplished with a small roller, hoe pack, or by other methods as approved by the Engineer.

Structural Fill to be placed on construction geotextile shall not be dumped directly onto construction geotextile. Structural Fill shall be placed on previously placed materials then spread over the construction geotextile.

If traffic is to be routed over structural fill, a 0.17-foot thick (minimum) course of crushed surfacing base course shall be placed and compacted to provide a smooth roadway surface, prior to opening the road to traffic. The fill shall be graded as necessary to provide smooth horizontal and vertical roadway alignments prior to placing the crushed surfacing base course. Crushed surfacing base course placed below subgrade shall remain in place and shall be incorporated into the roadway embankment.

2-13.4 Measurement

“Structural fill including haul”, by the ton.

Only material imported from offsite sources and meeting the requirements of this Special Provision will be measured. Excavated material from the Roadway, Excavation, Embankment and Disposal Including Haul and Structure Excavation Class A Including Haul bid items that are stockpiled and/or placed in the embankment will not be measured for this bid item. Crushed surfacing base course that is placed below

subgrade (to provide a smooth roadway surface) will be included in the measurement for Structural Fill Including Haul.

2-13.5 Payment

“Structural Fill Including Haul”, per ton.

The unit contract price per ton shall be full pay for furnishing, processing, hauling, placing, and compacting the structural fill. Crushed surfacing base course that is placed below subgrade (to provide a smooth roadway surface) will be paid at the unit price per ton for Structural Fill Including Haul.

BID ITEM 16: CRUSHED SURFACING BASE COURSE

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 4-04, except as modified below.

(*****)

4-04.3(4) Placing and Spreading

Delete item 2 of Section 4-04.3(4), which begins "Road Mix Method. Each..." and replace with the following:

- 2. **Road Mix Method.** The road mix method of mixing crushed surfacing base course and top course will not be allowed.

- 3. **Placement on Construction Geotextile.** Crushed surfacing base and top course to be placed on construction geotextile shall not be dumped directly onto geotextile. Crushed surfacing base and top course shall be dumped on previously placed materials then spread over the geotextile and compacted as required by the Plans.

(*****)

Delete the second paragraph under item **2 Road Mix Method** of Section 4-04.3(4), which begins “The following nominal depth...” and replace with the following:

The following nominal depth of compacted material shall not be exceeded in any one course without the approval of the Engineer:

Crushed Surfacing	0.50-foot
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4-04.3(5) Shaping and Compaction

Add the following to Section 4-04.3(5):

(*****)

The top surface of the compacted materials shall not deviate from the design grade in excess of the following:

Crushed Surfacing Base Course: + or – 0.02 foot.

BID ITEM 17: HMA CLASS 3/8 Inch PG 58H-22

BID ITEM 18: ASPHALT COST PRICE ADJUSTMENT

These bid items shall be accomplished in accordance with the Plans, the following APWA GSP for Section 5-04, as modified by Cowlitz County, and the subsequently following WSDOT GSP for Asphalt Cost Price Adjustment. Cowlitz County modifications to the APWA GSP are shown as underlined text for additions and as strikethrough text for deletions.

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 ***0.3 to less than 3.0*** 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 <u>0.17</u> 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.

The internal temperature of the HMA mixture as measured immediately behind the paver screed should not be less than the minimum Compaction Temperature listed in the Mix Design Submittal Form or that listed in the WSDOT Mix Design Verification Report, whichever is greater.

All underground utilities testing shall be completed, and the installation of the underground utilities shall be accepted by the utility owner prior to placing HMA. All fill and crushed surfacing materials under the HMA pavement shall be placed, compacted and tested according to the Contract Documents prior to placing HMA. The HMA mixture shall be laid upon the prepared surface, spread, and struck off to the grade and elevation established.

The finish surface of the compacted HMA shall not deviate from the design grade in excess of the following:

Specified Depth	Max. Allowable Deviation	Ave. Depth Deviation
	At any point	for entire project
Single lift 0.08 – 0.17'	-0.045'	-0.015'
Multi lift 0.00 – 0.25'	-0.03'	-0.01'
0.26 – 0.50'	-0.045'	-0.015'
0.51 – 0.75'	-0.06'	-0.02'
over 0.75'	-0.075'	-0.025'

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 Passing	Percent	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 subplot shall be equal to one day's production or 800 tons, whichever is less except that the final subplot 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 subplot.

Sampling and testing for total project quantities less than 400 tons is at the discretion of the engineer. For a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed:

- i. If test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.
- ii. If test results are found not to be within specification requirements, additional testing as needed to determine a CPF shall be performed.

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 AASHTO 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 be 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 subplot 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, Va. The results of the retest will be used for the acceptance of the HMA in place of the original subplot 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 subplot 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 subplot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the subplot 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 subplot 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.

Separate breakdown and finish rollers are required. 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. Approaches shall be compacted with vibratory plates or a small roller if determined necessary by the Engineer.

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 subplot shall be equal to one day's production or 400 tons, whichever is less except that the final subplot 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 subplot per WSDOT T 738.

The subplot 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 subplot, with one test per subplot.

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 subplot 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 subplot will be obtained. These additional samples and the original subplot 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 $\frac{1}{8}$ 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 $\frac{1}{4}$ 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. This includes notification of the public of areas where parking will be prohibited during planing or paving operations, including any necessary "TEMPORARY NO PARKING" signs.
 - 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.

5-04.3(17) Protection of Monuments

Monuments that are within cases shall be adjusted as described in the Special Provisions for the bid item Adjusting Valve Boxes/Monument Cases. In areas where pavement planing will occur, the planing shall come to within 0.5 feet of the monument. If the monument has no case, it shall be protected and covered as necessary throughout the planing and paving operations. The new pavement shall match the grade of the existing pavement surface surrounding the monument.

In locations where pavement planing will not occur and survey monuments have no existing casing, the Contractor shall cover the monument with material that will protect the monument from damage. The Contractor shall pave over the protected monument, leaving a 3-inch diameter hole in the paving mat centered over the monument. After paving operations are complete, the Contractor shall coat the sides of the hole and underlying pavement with tack coat. No tack coat shall cover the monument itself.

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.

No specific unit of measurement will apply to the calculated item of asphalt cost price adjustment.

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. The cost of asphalt for tack coat, preparation of existing surfaces, protection of monuments, temporary striping and removal of existing buttons and all other costs in connection with performing the work in accordance with these requirements shall be included in the unit cost for the HMA bid item of this contract.

“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.

(January 13, 2021)

Asphalt Cost Price Adjustment

The Contracting Agency will make an Asphalt Cost Price Adjustment, either a credit or a payment, for qualifying changes in the reference cost of asphalt binder. The adjustment will be applied to partial payments made according to Section 1-09.9 for the following bid items when they are included in the proposal:

“HMA Cl. ___ PG ___”

“HMA for Approach Cl. ___ PG ___”

“HMA for Preleveling Cl. ___ PG ___”

“HMA for Pavement Repair Cl. ___ PG ___”

“Commercial HMA”

The adjustment is not a guarantee of full compensation for changes in the cost of asphalt binder. The Contracting Agency does not guarantee that asphalt binder will be available at the reference cost.

The Contracting Agency will establish asphalt binder reference costs twice each month and post the information on the Agency website at: <https://wsdot.wa.gov/business-wsdot/contracts/about-public-works-contracts/payments-reporting/asphalt-binder-reference-cost>. The reference cost will be determined using posted prices furnished by Poten & Partners, Inc. If the selected price source ceases to be available for any reason, then the Contracting Agency will select a substitute price source to establish the reference cost.

Price adjustments will be calculated one time per month. No price adjustment will be made if the Current Reference Cost is within +/-5% of the Base Cost. Reference costs for projects located in Eastern versus Western Washington shall be selected from the column in the WSDOT website table labeled "Eastern", or "Western", accordingly. The adjustment will be calculated as follows:

If the reference cost is greater than or equal to 105% of the base cost, then Asphalt Cost Price Adjustment = (Current Reference Cost – (1.05 x Base Cost)) x (Q x 0.056).

If the reference cost is less than or equal to 95% of the base cost, then Asphalt Cost Price Adjustment = (Current Reference Cost – (0.95 x Base Cost)) x (Q x 0.056).

Where: Current Reference Cost is selected from the website table based on the "Date Effective" that immediately precedes the current month's progress estimate end date. For work completed after all authorized working days are used, the adjustment will be based on the posted reference cost during which contract time was exhausted.

Base Cost is selected from the website table based on the "Date Effective" that immediately precedes the contract bid opening date, and shall be a constant for all monthly adjustments.

Q = total tons of all classes of HMA paid in the current month's progress payment.

"Asphalt Cost Price Adjustment", by calculation.

"Asphalt Cost Price Adjustment" will be calculated and paid for as described in this section. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the total bid by the Contractor.

BID ITEM 19: CONC. CLASS 5000

BID ITEM 20: ST. REINF. BAR FOR BRIDGE

BID ITEM 21: ST. REINF. BAR FOR WINGWALL

BID ITEM 22: GRAVEL BACKFILL FOR FOUNDATIONS CLASS A

BID ITEM 23: GRAVEL BACKFILL FOR WALL

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 6-02.

BID ITEM 24: DRIVING ST. PILING

BID ITEM 25: FURNISHING STEEL PILING, 12-INCH DIAMETER

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 6-05.

BID ITEM 26: ROCK EXCAVATION FOR SHAFT INCLUDING HAUL

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 6-19, except as modified below.

6-19 SHAFTS

6-19.4 Measurement

The first paragraph is revised to read:

Rock excavation for shaft, including haul, will be measured by the cubic yards of shaft excavated. The cubic yards will be computed using the shaft diameter, top of shaft elevation and bottom of shaft elevation shown in the Plans, less all rock excavation measured as specified for rock excavation. Excavation between the existing ground line and the top of shaft elevation is considered incidental to soil excavation for shaft and will not be measured.

The second paragraph is deleted.

6-19.5 Payment

The bid item “Rock Excavation For Shaft Including Haul”, per linear foot is revised to read:

(*****)

“Rock Excavation For Shaft Including Haul”, per cubic yard.

The unit Contract price per cubic yard for “Rock Excavation For Shaft Including Haul” shall be full pay for performing the work as specified, including all costs in connection with furnishing, mixing, placing, maintaining, containing, collecting, and disposing of all mineral, synthetic, and water slurry, and disposing of groundwater collected by the shaft excavation, and the incidental excavation of soils between the top of shaft elevation shown in the Plans and the existing ground line, the placement and embedment of piles using concrete into the excavated shaft.

BID ITEM 27: INSTALLATION OF AGENCY SUPPLIED BURIED STRUCTURE

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 6-20, except as modified below.

6-20 BURIED STRUCTURES

6-20.1 Description

Section 6-20.1 is supplemented with the following:

(*****)

The Agency Supplied Buried Structure is a steel structural plate arch. The manufacturer will deliver the steel structural plate arch materials to the project site. The Contractor shall offload these materials. The Contractor shall install the steel structural plate arch.

6-20.5 Payment

Section 6-20.5 is supplemented with the following:

(*****)

“Installation of Agency Supplied Buried Structure”, lump sum.

The lump sum Contract price for “Installation of Agency Supplied Buried Structure” shall be full payment to perform the Work as specified in Section 6-20.1 through Section 6-20.3.

BID ITEM 28: UNDERDRAIN PIPE, 6-INCH DIAMETER

BID ITEM 29: GRAVEL BACKFILL FOR DRAIN

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 7-01, except as modified below.

7-01.2 Materials

(*****)

Add the following to Section 7-01.2:

Geotextile for underground drainage shall be Class A with moderate survivability meeting the requirements of Section 9-33.

(*****)

Delete paragraph three of Section 7-01.2, which begins, "Underdrain pipe, other than..." and replace with the following:

All underdrain pipe shall be perforated corrugated polyethylene underdrain pipe type SP (smooth inner liner – perforated) meeting the requirements of Section 9-05.2(7), and listed on the WSDOT Qualified Product List, unless otherwise specified on the plans.

(*****)

Delete paragraph four of Section 7-01.2, which begins, "It is not necessary..."

7-01.4 Measurement

(*****)

Delete paragraph two and three of Section 7-01.4 which begin "Excavation of the trench..." and "Gravel backfill for drains...", respectively.

7-01.5 Payment

(*****)

Add the following to Section 7-01.5:

The unit contract price per linear foot for the Drain Pipe or Underdrain Pipe of the type and size specified

shall be full pay for furnishing and installing the underdrain pipe. Installation shall include excavation, removal of culverts to be abandoned or replaced, fittings, connections to existing and new facilities, cleaning, providing and placing all backfill, geotextile, compaction and all other work essential for the completion of the installation to the required lines and grades.

BID ITEM 30: CORRUGATED POLYETHYLENE STORM SEWER PIPE, 18-INCH DIAM

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 7-04 and 7-08, except as modified below.

7-04.3 Construction Requirements

(*****)

Add the following to Section 7-08, which is referenced by Section 7-04.3:

7-08.2 Materials

(*****)

Delete the text of Section 7-08.2 and replace with the following:

Materials shall meet the requirements of the following sections:

- Gravel Backfill for Pipe Zone Bedding 9-03.9(3), Base Course
- Gravel Backfill for Pipe Zone Backfill 9-03.9(3), Base Course
- Gravel Backfill Above Pipe 9-03.9(3), Base Course

7-08.3(2) Laying Pipe

Add the following to Section 7-08.3(2):

(*****)

7-08.3(2)J Beveled Ends

All exposed ends of storm sewer pipes or culverts shall be beveled on a 3:1 slope beginning 6 inches above the pipe flow line, or beveled to match the embankment or ditch foreslope, not to exceed 4:1.

7-04.3(1)A General

(*****)

Add the following to Section 7-04.3(1)A:

Testing will not be required if a section of storm sewer pipe is less than 75 feet long, has less than 5 feet of cover, and has no inlet or junction structures.

7-04.4 Measurement

(*****)

Delete the second sentence of paragraph one of Section 7-04.4, which begins, "The number of linear..."

and replace with the following:

The number of linear feet will be measured from the inside face of drainage structure to the inside face of drainage structure or from the inside face of drainage structure to the end of pipe, as is appropriate.

7-04.5 Payment

(*****)

Delete paragraph two of Section 7-04.5, which begins, “The unit contract price...” and add the following:

The unit contract price per linear foot for storm sewer pipe of the type and size specified shall be full pay for furnishing and installing the pipe. Installation shall include excavation, removal of culverts or structures to be abandoned or replaced, fittings, jointing materials, beveling, backfilling to existing grade or subgrade, compaction, and all other items essential for completion of the installation to the required lines and grades.

BID ITEM 31: STORMWATER POLLUTION PREVENTION

This bid item shall be accomplished in accordance with the Plans, Standard Specification Section 8-01, and Appendix X – Construction Stormwater General Permit, except as modified below.

8-01 Erosion Control and Water Pollution Control

Section 8-01 is supplemented with the following:

(*****)

Stormwater Pollution Prevention

The Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) for all construction activities required for the project. The SWPPP shall comply with all requirements of the State of Washington Department of Ecology Construction Stormwater General Permit (NPDES Permit) in Appendix X. The SWPPP shall be prepared prior to any construction activities and shall be kept onsite at all times from the initial soil disturbance until final stabilization of the project site. A copy of the SWPPP shall be submitted to the Engineer.

In the event that the SWPPP needs to be modified due to changes in the Contractor’s operations, the Contractor shall prepare a revised SWPPP. This revised SWPPP shall be kept onsite at all times from the initial soil disturbance until final stabilization of the project site. A copy of this revised SWPPP shall be submitted to the Engineer.

The Contractor shall implement all provisions of the SWPPP and the NPDES Permit throughout the project. This includes, but is not limited to, the installation of all necessary best management practices (BMP’s), monitoring and reporting on the BMP’s and stormwater discharges, and maintenance of the BMP’s.

Transfer of Coverage

Prior to the commencement of any construction activities, the Contractor and Contracting Agency shall complete a Transfer of Coverage form to transfer coverage of the Construction Stormwater General

Permit. The Contractor shall become the new operator/permittee and shall assign an on-site contact person. After the Transfer of Coverage form has been completed and signed by both parties, the County shall submit the form to the Washington State Department of Ecology.

Measurement

No unit of measurement shall apply to the lump sum item of Stormwater Pollution Prevention.

Payment

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

“Stormwater Pollution Prevention”, lump sum.

The lump sum contract price for Stormwater Pollution Prevention shall be full pay for preparing the SWPPP, revising the SWPPP as necessary, and keeping the SWPPP onsite at all times from the initial soil disturbance until final stabilization of the project site. It shall also be full pay for providing, installing and maintaining all necessary BMP's. It shall also be full pay for all monitoring and reporting required by the SWPPP and the NPDES Permit.

BID ITEM 32: EROSION CONTROL BLANKET

BID ITEM 33: SILT FENCE

BID ITEM 34: COMPOST BLANKET

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 8-01, except as modified below:

8-01.3(3) Placing Erosion Control Blanket

Add the following to Section 8-01.3(3)

Adjacent sections of the erosion control blanket shall overlap by a minimum of ten inches.

8-01.3(4) Placing Compost Blanket

Delete the first sentence of the second paragraph of Section 8-01.3(4) which reads “Medium compost shall be used for the compost blanket” and replace with the following:

Compost shall be Fine Compost meeting the requirements of Section 9-14.4(8).

BID ITEM 35: TOPSOIL TYPE B

BID ITEM 36: PSIFE - 10 INCH PLUG SHRUB

BID ITEM 37: PSIFE - 1 GALLON TREE

BID ITEM 38: SEEDING, FERTILIZING, AND MULCHING

BID ITEM 39: WOOD CHIP MULCH RINGS

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 8-02, except as modified below:

8-02.2 Materials

Section 8-02.2 is supplemented with the following:

Fertilizer

Section 9-14.4 is supplemented with the following:

(*****)

Fertilizer tablets shall be slow release 20-10-5 with micronutrients, 21 grams each with a minimum 6-month slow release duration. Install 1 tablet for each 1-gallon shrub or plug.

Fertilizer tablets shall be installed in accordance with the manufacturer’s written instructions.

8-02.3 Construction Requirements

Section 8-02.3(6)A Compost

This Section is supplemented with the following:

(*****)

Compost shall be Fine Compost meeting the requirements of Section 9-14.4(8). Install fine compost blanket around trees and shrubs after planting, keeping compost away from crown of plant.

8-02.3(9)B Seeding, Fertilizing and Mulching

Section 8-02.3(9)B is supplemented with the following:

Seed Mix: Grass seed, of the following composition, proportion, and quality shall be applied at the rate of ****80**** pounds of pure live seed per acre on all areas requiring permanent roadside seeding within the project limits.

Kind and Variety of Seed in Mixture	Pounds Pure Live Seed (PLS) Per Acre
Deschampsia elongata Slender Hairgrass	0.32
Elymus glaucus Blue Wildrye	34.43
Festuca idahonesis Idaho Fescue	5.61
Festuca ovina Sheep Fescue	0.93
Hordeum brachyantherum Meadow Barley	29.71
Koeler cristata Prairie Junegrass	0.27

<i>Lolium multiflorum</i>	8.73
Annual Ryegrass	
Total Pounds PLS Per Acre	80.00

Seeds shall be certified “Weed Free”, indicating there are not noxious or nuisance weeds in the seed.

Fertilizing

Sufficient quantities of fertilizer shall be applied to supply the following amounts of nutrients:

- Total Nitrogen as N - 135 pounds per acre.
- Available Phosphoric Acid as P₂O₅ - 60 pounds per acre.
- Soluble Potash as K₂O - 60 pounds per acre.

90 pounds of nitrogen applied per acre shall be derived from isobutylidene diurea (IBDU), cyclo-di-urea (CDU), or a time release, polyurethane coated source with a minimum release time of 6 months. The remainder may be derived from any source.

The fertilizer formulation and application rate shall be approved by the Engineer before use.

Section 8-02.3(11) Mulch

This Section is supplemented with the following:

(*****)

Wood Cellulose Fiber mulch shall be hydraulically applied at a rate of 2,000 pounds per acre to produce 100% soil coverage.

8-02.5 Payment

Delete the paragraph of Section 8-02.5, which begins, “The unit Contract price for “PSIPE ____...” and replace with the following:

(*****)

The unit Contract price for “PSIPE ____”, per each, shall be full pay for all Work to perform as specified within the planting area for weed control and planting area preparation, furnishing and installing the fertilizer tablet, planting, cleanup, and water necessary to complete planting operations as specified to the end of first year plant establishment.

BID ITEM 40: FLEXIBLE GUIDE POST

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 8-10, except as modified below.

8-10 GUIDE POSTS

8-10.1 Description

Delete Section 8-10.1 and replace it with the following:

(*****)

This work shall consist of furnishing and placing Flexible Guide Post – guardrail mount in accordance with these Specifications and the Standard Plans, at the locations as indicated in the plans or where designated by the Engineer.

8-10.3 Construction Requirements

Section 8-10.3 is supplemented with the following:

(*****)

Flexible Guide Posts shall be installed at every third section of guardrail including terminals and transitions, at a spacing not to exceed 37.5', or as directed by the Engineer.

BID ITEM 41: BEAM GUARDRAIL TYPE 31

BID ITEM 42: BEAM GUARDRAIL ANCHOR TYPE 11

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 8-11, except as modified below.

8-11 GUARDRAIL

8-11.2 Materials

Add the following to Section 8-11.2:

(*****)

Beam Guardrail Flared and Non-Flared Terminals shall be listed on the WSDOT Qualified Product List. Terminals shall have a TL-2 rating when so specified on the Plans. Otherwise, TL-2 terminals will not be allowed.

8-11.4 Measurement

Delete paragraph one of Section 8-11.4, which begins, "Measurement of beam guardrail..." and replace with the following:

(*****)

Measurement of beam guardrail and beam guardrail with long posts will be by the linear foot measured along the line of completed guardrail from end to end including Design F end sections for connection to concrete barrier, but excluding transition and terminal sections as are covered by other bid items of this contract.

8-11.5 Payment

(*****)

Delete the fifth sentence of the first paragraph of Section 8-11.5, which begins, “The unit contract price per linear foot...” and replace with the following:

The unit contract price per linear foot for “Beam Guardrail Type____”, “Beam Guardrail Type 1-____ Ft. Long Post”, or “Beam Guardrail Type 31-____ Ft. Long Post” shall include all CRT posts and installation of the guardrail to the posts as specified and indicated on the plans.

BID ITEM 43: MAILBOX SUPPORT, TYPE 2

This bid items shall be accomplished in accordance with the Plans, WSDOT Standard Plans H-70.10-00 and H-70.20-00, and Standard Specification Section 8-18, except as modified below.

8-18.3 Construction Requirements

(*****)

Delete the third paragraph of Section 8-18.3, which begins “The existing mailboxes shall...”, and replace with the following:

The Engineer will determine which mailboxes require new supports. Mailboxes not requiring new supports will be reinstalled with their existing supports at locations determined by the Engineer. Mailboxes requiring new supports shall be installed according to the Standard Plans. The Engineer will determine the type of support to be installed for each mailbox. Each mailbox shall be installed within 24 hours of completion of the shoulder work at the mailbox location.

8-18.4 Measurement

(*****)

Add the following to Section 8-18.4:

Mailboxes installed with their existing supports will not be measured for payment under this bid item.

8-18.5 Payment

(*****)

Add the following to Section 8-18.5:

The costs associated with the removal and reinstallation of existing mailboxes that do not require new supports shall be included in the Removal of Structures and Obstructions bid item.

BID ITEM 44: PAINT LINE

This bid item shall be accomplished in accordance with the Plans and Standard Specifications Section 8-22.

BID ITEM 45: CHANNEL FILL MATERIAL INCLUDING HAUL

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 8-30, except as modified below. The bid quantities listed for this item is approximate and is for the purposes of bidding only. Overruns and underruns in this bid item shall not be cause for adjustment in the unit price. Section 1-04.6 "Increased or Decreased Quantities" does not apply to this bid item.

8-30 STREAMS, RIVERS, AND WATERBODIES

8-30.1 Description

(*****)

Add the following to Section 8-30.1:

This work consists of placing channel fill within the new culvert and the reconstructed creek channel segments at both ends of the culvert.

8.30.2 Materials

(*****)

Add the following to Section 8-30.2:

Aggregate for Channel fill material shall meet the requirements of Sections 9-03.11(1), Streambed Sediment, 9-03.11(4), Streambed Cobbles and 9-03.11(5), Streambed Boulders mixed to the following proportions:

Material	Percent by Weight
Streambed Boulders, Type 1	8% - 12%
8" Streambed Cobbles	45% - 55%
Streambed Sediment	35% - 45%

8-30.3 Construction Requirements

(*****)

Add the following to Section 8-30.3:

This work must be accomplished during the time allowed by the permits (see appendices). Prior to performing this work, the temporary diversion required under the bid item Temporary Creek Diversion must be in place. Dewatering is included in the bid item Temporary Creek Diversion. The Contractor shall comply with all requirements of the permits included in the appendices.

Channel fill material shall be placed within the culvert as shown on the Plans. All channel fill material shall be carefully placed to avoid segregation of the larger rocks. Channel fill material shall not be dumped from a height greater than five feet. Placed channel fill material shall be compacted with tracked equipment making a minimum of three passes. Alternatively, a hoe-pack may be used for compaction. Within the culvert, channel fill shall be compacted with small equipment.

8-30.4 Measurement

(*****)

Add the following to Section 8-30.4:

Measurement for channel fill material shall be by the ton of channel fill material actually placed.

8-30.5 Payment

(*****)

Add the following to Section 8-30.5:

“Channel Fill Material Including Haul” per ton.

The unit contract price per ton shall be full pay for furnishing, processing, hauling, placing and compacting the channel fill material.

BID ITEM 46: TEMPORARY STREAM DIVERSION

This bid item shall be accomplished in accordance with the Plans and the following Special Provisions Section 8-31, except as modified below.

8-31 TEMPORARY STREAM DIVERSION

8-31.3 Construction Requirements

8-31.3(1) General

8-31.3(1)A General TSD Requirements

Section 8-31.3(1)A is supplemented with the following:

(*****)

Stream water shall be diverted around construction areas for the duration of all in-stream work. The stream diversion shall be designed to convey **35** cubic feet per second without any stream flow overtopping the upstream diversion dam. The stream diversion system must not extend beyond the limits of disturbance shown on the Plans.

The Contractor is responsible for dewatering the work area. Additional dewatering sumps and discharge pumps shall always be available within the site to manage seeping groundwater and lower water levels necessary for sufficient construction conditions. Dispose of dewatering water in accordance with Section 8-01.3(1)C.

The Contractor shall have materials on site, and processes defined, to secure the area from impacts of heavy rainfall with appropriate BMPs (such as plastic sheeting, straw mulch or placement of streambed aggregate on disturbed soils ahead of the storm) to prevent high flows from contacting disturbed fine soils within the active work zone.

Before diversion systems are completely removed, a fraction of the full flow shall be released to the watercourse such that the water can be pumped upland immediately upstream of the diversion outlet.

The fractional flow release shall continue until turbidity is minimized to the approval of the Engineer and in compliance with permit conditions.

8-31.3(1)B TSD Plan Implementation Meeting

Delete Section 8-31.3(1)B.

8-31.3(2) Temporary Stream Diversion Plan

8-31.3(2)B Plan Requirements

Delete item 2.a.ii of Section 8-31.3(2)B that begins “Fish Block Net Installation...” and replace with the following:

(*****)

ii. Fish Block Net Installation and Fish Exclusion (performed by Contractor).

Delete item 2.a.ix of Section 8-31.3(2)B that begins “Fish Block Net Removal...” and replace with the following:

(*****)

ix. Fish Block Net Removal (performed by Contractor).

Delete item 5.c of Section 8-31.3(2)B that begins “Provide the type and size of...” and replace with the following:

(*****)

c. Provide the type and size of materials that will be used in the event of the work area becoming inundated, including fish exclusion if the block nets are compromised.

8-31.3(3) Fish Block Net Installation and Fish and Aquatic Species Exclusion

Delete Section 8-31.3(3) and replace with the following:

(*****)

The Contractor shall install fish block nets upstream and downstream of the in-water work area and safely capture and relocate all fish and other aquatic organisms that become trapped between the block nets. No Work within the limits of the Ordinary High-Water Line will be allowed prior to installation of fish block nets and completion of fish exclusion activities. Fish capture and removal shall be performed according to WSDOT Fish Exclusion Protocols and Standards. An exception to these guidelines is that the directing biologist does not have to be under contract with WSDOT but shall be a fisheries biologist with at least two years of experience that includes conducting fish exclusion operations. If the bypass is overwhelmed during a storm event, causing water to flow into the project site and the fish exclusion nets are damaged or bypassed, fish exclusion shall be re-performed prior to restarting construction activities.

8-31.3(3)A Fish Exclusion Assistance

Delete Section 8-31.3(3)A.

8-31.3(3)B Contracting Agency Provided Materials

Delete Section 8-31.3(3)B.

8-31.3(4) Dewatering Work Areas

Delete Section 8-31.3(4) and replace with the following:

(*****)

Dewatering the isolated in-water work area (between the upstream and downstream diversion dams) shall occur at a rate slow enough to allow the Contractor to safely capture and relocate all fish species and other aquatic organisms to avoid stranding.

All pumps used for dewatering shall have an intake covered with a fish screen, operated, and maintained in accordance with RCW 77.57.010 and RCW 77.57.070. Appropriate fish screens are as follows:

1. Perforated plate: 0.094 inch (maximum opening diameter);
2. Profile bar: 0.069 inch (maximum width opening); or
3. Woven wire: 0.094 inch (maximum opening measured on the diagonal).

The minimum open area for all types of fish screens is 27 percent. The screened intake facility must have enough surface area to ensure that the velocity through the screen complies with the velocity provided within the Hydraulic Project Approval (HPA). If no velocity is provided within the HPA, the maximum approach velocity shall not exceed 0.33 feet per second. The fish screen must remain in place whenever water is withdrawn until the Contractor's Biologists confirm all fish have been removed. At that point, the Contractor may remove the fish screen to finish dewatering the work area.

8-31.3(5) Inspection and Maintenance

Delete Section 8-31.3(5) and replace with the following:

(*****)

At a minimum, the Contractor shall perform the following activities once per day (including weekends and holidays):

1. Check for and correct leaks;
2. Check inlet for proper function;
3. Ensure the upstream and downstream fish block nets remain sealed to the channel substrate;
4. Inspect the upstream and downstream fish block nets and remove debris;
5. Inspect the upstream fish block net and all screens and similar facilities for impinged fish; and
6. If impinged fish are discovered, the Contractor shall carefully remove the impinged fish and place it in the creek downstream of the isolated work area in a minimum of 6 inches of water.

The Contractor shall maintain a written record of all inspection and maintenance activities; record to be available at the request of the Engineer.

8-31.3(6) Channel Rewatering and Removal of TSD Components (Except Nets)

Delete Section 8-31.3(6) and replace with the following:

(*****)

The Contractor shall introduce water to the new stream channel section and trap sediments until the stream section meets the requirements of these Provisions. Rewatering shall occur at a rate to avoid loss of surface water downstream while the new channel section is rewatered.

Once the water in the new stream channel meets the applicable turbidity standards the Contractor may begin removal of the temporary stream diversion and the stream channel opened to flows.

The Contractor shall immediately take all corrective actions necessary to prevent the water from exceeding the turbidity standards should the stream turbidity increase. All Work within the channel, except for removal of the temporary erosion control items, shall be completed before the temporary stream diversion is removed. The Contractor must finish all construction activities within the limits of the Ordinary High-Water Line, including but not limited to culvert installation and creek bed channel restoration, before removing the fish block nets.

8-31.3(7) Removal of Fish Block Nets

Delete Section 8-31.3(7) and replace with the following:

The Contractor shall carefully remove the block nets. All materials used for the diversion shall become the property of the Contractor and removed from the project limits.

8-31.3(7)A Contractor Provided Labor

Delete Section 8-31.3(7)A.

8-31.3(7)B Contracting Agency-Provided Materials

Delete Section 8-31.3(7)B.

8-31.5 Payment

Delete Section 8-31.3(5) and replace with the following:

Payment will be made for the following Bid item when it is included in the Proposal:

“Temporary Stream Diversion”, lump sum.

The lump sum Contract price for “Temporary Stream Diversion” shall be full payment to perform the Work as specified. Progress payments for the lump sum item “Temporary Stream Diversion” will be made as follows:

1. Ten percent of the bid amount will be paid following completion of the TSD Plan including resolution of all Contracting Agency review comments.
2. The next eighty percent of the bid amount will be paid following completion of the initial stream diversion installation.

3. The remaining ten percent of the bid amount will be paid following removal of all stream diversion components and restoration of the areas disturbed by the stream diversion system.

BID ITEM 47: LARGE WOODY MATERIAL

BID ITEM 48: DEADMAN ANCHOR

These bid items shall be accomplished in accordance with the Plans and the following Special Provisions Section 8-32. The bid quantities listed for these items are approximate and are for the purposes of bidding only. Overruns and underruns in these bid items shall not be cause for adjustment in the unit prices. Section 1-04.6 "Increased or Decreased Quantities" does not apply to these bid items.

8-32.1 Description

This work consists of placing rootwads and attached stems in the creek bank as shown on the Plans. This work must be accomplished during the time allowed by the permits (see appendices). The Contractor shall comply with all requirements of these permits.

8-32.2 Materials

Large woody material shall be obtained from the trees to be removed for the Clearing and Grubbing bid item. Large woody material shall have a rootwad intact with the stem and meeting the length requirements shown on the Plans. Dirt, rocks and debris on the rootwads shall be removed as much as possible.

Logs shorter than 30 feet shall be identified, and the length reported to the Engineer prior to placement. Deadman anchors as shown on the plans shall be installed as directed by the Engineer for logs that don't meet the length minimum requirement.

8-30.3 Construction Requirements

Large woody material shall be pushed into the creek banks as shown on the Plans. If the large woody material hits an obstruction and cannot be advanced to the required penetration, the large woody material shall be placed in a trench. Trenches for large woody material shall be excavated to the minimum size necessary to accommodate installation of the large woody material. Large woody material shall be installed with the stem embedded into the creek bank, and oriented as shown on the Plans. Excavated material from the trenches shall be backfilled around the large woody material and compacted with a hoe pack or rammer compacter ("jumping jack"). Channel fill material will be placed within the creek as shown on the Plans.

8-32.4 Measurement

Large woody material will be measured by the unit for each rootwad with intact stem prepared and installed.

Deadman Anchors will be measured by the unit for each installed.

8-32.4 Payment

Payment will be made for the following Bid item included in the Proposal:

“Large Woody Material”, per each.

“Deadman Anchor”, per each.

The unit Contract price for “Large Woody Material” shall be full pay for preparing and installing the Large Woody Material as shown on the Plans and in accordance with these Special Provisions. All other work necessary for the complete large woody material installation is included in the unit price.

The unit Contract price for “Deadman Anchor” shall be full pay for installation of the anchor as shown on the Plans at the location directed by the Engineer and in accordance with these Special Provisions.

(November 4, 2024)

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-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-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 Standard Plan C-81.10 and/or C-81.15”

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

General Note 1; "Construct curb joints at concrete pavement transverse joint locations. If all adjacent pavement is HMA, see Standard Plan 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-20.10

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 ~ 3/4" (IN) x 30" (IN) FULL THREAD ~ THREE REQ'D. PER ASSEMBLY" is revised to read; "ANCHOR BOLTS ~ 3/4" (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 1/2" DIAM., is revised to read; CHASE NIPPLE ~ 1 1/2" (IN) DIAM.

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-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-10.10-008/7/07	A-30.35-0010/12/07	A-50.10-027/18/24
A-10.20-0010/5/07	A-40.00-017/6/22	A-50.40-018/17/21
A-10.30-0010/5/07	A-40.10-047/31/19	A-60.10-0312/23/14

A-20.10-008/31/07	A-40.15-008/11/09	A-60.20-0312/23/14
A-30.10-0011/8/07	A-40.20-041/18/17	A-60.30-016/28/18
A-30.30-016/16/11	A-40.50-03 9/12/23	A-60.40-008/31/07
B-5.20-039/9/20	B-30.50-03 2/27/18	B-75.20-03 8/17/21
B-5.40-021/26/17	B-30.60-00 9/9/20	B-75.50-02 3/15/22
B-5.60-021/26/17	B-30.40-03 2/27/18	B-70.60-01 1/26/17
B-10.20-038/23/23	B-30.70-04 2/27/18	B-75.60-00 6/8/06
B-10.40-028/17/21	B-30.80-01 2/27/18	B-80.20-00 6/8/06
B-10.70-038/23/23	B-30.90-02 1/26/17	B-80.40-00 6/1/06
B-15.20-012/7/12	B-35.20-00 6/8/06	B-85.10-01 6/10/08
B-15.40-012/7/12	B-35.40-01 8/23/23	B-85.20-00 6/1/06
B-15.60-021/26/17	B-40.20-00 6/1/06	B-85.30-00 6/1/06
B-20.20-023/16/12	B-40.40-02 1/26/17	B-85.40-00 6/8/06
B-20.40-042/27/18	B-45.20-01 7/11/17	B-85.50-01 6/10/08
B-20.60-033/15/12	B-45.40-01 7/21/17	B-90.10-00 6/8/06
B-25.20-022/27/18	B-50.20-00 6/1/06	B-90.20-00 6/8/06
B-25.60-038/23/23	B-55.20-03 8/17/21	B-90.30-00 6/8/06
B-30.05-009/9/20	B-60.20-02 9/9/20	B-90.40-01 1/26/17
B-30.10-032/27/18	B-60.40-01 2/27/18	B-90.50-00 6/8/06
B-30.15-002/27/18	B-65.20-01 4/26/12	B-95.20-02 8/17/21
B-30.20-042/27/18	B-65.40-00 6/1/06	B-95.40-01 6/28/18
B-30.30-032/27/18	B-70.20-01 3/15/22	
C-19/8/22	C-23.70-01 10/16/23	C-70.10-04 10/16/23
C-1b10/12/23	C-24.10-05 7/21/24	C-70.15-01 7/21/24
C-1d10/31/03	C-24.15-00 3/15/22	C-75.10-02 9/16/20
C-6a9/8/22	C-25.20-07 8/20/21	C-75.20-03 8/20/21
C-79/8/22	C-25.22-06 8/20/21	C-75.30-03 8/20/21
C-7a9/8/22	C-25.26-05 8/20/21	C-80.10-03 10/16/23
C-20.10-0910/12/23	C-25.30-01 8/20/21	C-80.20-01 6/11/14
C-20.14-059/8/22	C-25.32-00 7/29/24	C-80.30-02 8/20/21
C-20.15-0310/12/23	C-25.80-05 8/12/19	C-80.40-01 6/11/14
C-20.18-049/8/22	C-60.10-04 7/21/24	C-85.10-00 4/8/12
C-20.40-1010/12/23	C-60.15-01 7/21/24	C-85.11-01 9/16/20
C-20.41-057/18/24	C-60.20-01 9/8/22	C-85.15-03 10/17/23
C-20.43-017/18/24	C-60.30-02 7/21/24	C-85-18-03 9/8/22
C-20.44-008/13/24	C-60.40-01 7/21/24	C-81.10-00 9/12/23
C-20.45-039/8/22	C-60.45-01 7/21/24	C-81.15-00 9/12/23
C-20.55-007/30/24	C-60.50-01 7/21/24	
C-22.16-0810/17/23	C-60.60-01 7/21/24	
C-22.40-117/21/24	C-60.70-01 9/8/22	
C-22.45-077/21/24	C-60.80-02 7/21/24	
D-2.36-036/11/14	D-3.11-036/11/14	D-10.25-01 8/7/19
D-2.46-028/13/21	D-4 12/11/98	D-10.30-00 7/8/08

D-2.84-0011/10/05	D-66/19/98	D-10.35-00 7/8/08
D-2.92-014/26/22	D-10.10-01 12/2/08	D-10.40-01 12/2/08
D-3.09-005/17/12	D-10.15-01 12/2/08	D-10.45-01 12/2/08
D-3.10-015/29/13	D-10.20-01 8/7/19	D-20.10-00 10/9/23
E-12/21/07	E-48/27/03	E-20.10-00 9/12/23
E-25/29/98	E-4a8/27/03	E-20.20-00 10/4/23
F-10.12-049/24/20	F-10.62-02 4/22/14	F-40.15-04 9/25/20
F-10.16-0012/20/06	F-10.64-03 4/22/14	F-40.16-03 6/29/16
F-10.18-046/28/24	F-30.10-04 9/25/20	F-45.10-05 6/4/24
F-10.40-049/24/20	F-40.12-03 6/29/16	F-80.10-04 7/15/16
F-10.42-001/23/07	F-40.14-03 6/29/16	
G-10.10-009/20/07	G-24.50-05 8/7/19	G-90.10-03 7/11/17
G-20.10-038/20/21	G-24.60-05 6/28/18	G-90.20-05 7/11/17
G-22.10-046/28/18	G-25.10-05 9/16/20	G-90.30-04 7/11/17
G-24.10-0011/8/07	G-26.10-00 7/31/19	G-95.10-02 6/28/18
G-24.20-01 2/7/12	G-30.10-04 6/23/15	G-95.20-03 6/28/18
G-24.30-026/28/18	G-50.10-03 6/28/18	G-95.30-03 6/28/18
G-24.40-076/28/18		
H-10.10-016/2/24	H-30.10-00 10/12/07	H-70.10-02 8/17/21
H-10.11-006/2/24	H-32.10-00 9/20/07	H-70.20-02 8/17/21
H-10.15-016/2/24	H-60.10-01 7/3/08	
H-10.16-006/2/24	H-60.20-01 7/3/08	
I-10.10-018/11/09	I-30.20-00 9/20/07	I-40.20-00 9/20/07
I-30.10-023/22/13	I-30.30-02 6/12/19	I-50.20-02 7/6/22
I-30.15-023/22/13	I-30.40-02 6/12/19	I-60.10-01 6/10/13
I-30.16-017/11/19	I-30.60-02 6/12/19	I-60.20-01 6/10/13
I-30.17-016/12/19	I-40.10-00 9/20/07	I-80.10-02 7/15/16
J-05.50-008/30/22	J-26.10-03 7/21/16	J-50.05-00 7/21/17
J-107/18/97	J-26.15-01 5/17/12	J-50.10-01 7/31/19
J-10.10-049/16/20	J-26.20-01 6/28/18	J-50.11-02 7/31/19
J-10.12-009/16/20	J-27.10-01 7/21/16	J-50.12-02 8/7/19
J-10.14-009/16/20	J-27.15-00 3/15/12	J-50.13-01 8/30/22
J-10.15-016/11/14	J-28.01-00 8/30/22	J-50.15-01 7/21/17
J-10.16-028/18/21	J-28.10-02 8/7/19	J-50.16-01 3/22/13
J-10.17-028/18/21	J-28.22-00 8/07/07	J-50.18-00 8/7/19
J-10.18-028/18/21	J-28.24-02 9/16/20	J-50.19-00 8/7/19
J-10.20-048/18/21	J-28.26-01 12/02/08	J-50.20-00 6/3/11
J-10.21-028/18/21	J-28.30-04 6/18/24	J-50.25-00 6/3/11
J-10.22-0310/4/23	J-28.40-02 6/11/14	J-50.30-00 6/3/11
J-10.25-016/21/24	J-28.42-01 6/11/14	J-60.05-01 7/21/16

J-10.26-008/30/22	J-28.43-01 6/28/18	J-60.11-00 5/20/13
J-12.15-006/28/18	J-28.45-03 7/21/16	J-60.12-00 5/20/13
J-12.16-006/28/18	J-28.50-03 7/21/16	J-60.13-00 6/16/10
J-15.10-016/11/14	J-28.60-03 8/27/21	J-60.14-01 7/31/19
J-15.15-02 7/10/15	J-28.70-04 8/30/22	J-75.10-02 7/10/15
J-20.01-016/21/24	J-29.10-02 8/26/22	J-75.20-01 7/10/15
J-20.05-006/21/24	J-29.15-01 7/21/16	J-75.30-02 7/10/15
J-20.10-0510/4/23	J-29.16-02 7/21/16	J-75.50-00 8/30/22
J-20.11-03 7/31/19	J-30.10-01 8/26/22	J-75.55-00 8/30/22
J-20.15-046/21/24	J-40.01-00 8/30/22	J-80.05-00 8/30/22
J-20.16-026/30/14	J-40.05-00 7/21/16	J-80.10-01 8/18/21
J-20.20-025/20/13	J-40.10-04 4/28/16	J-80.12-00 8/18/21
J-20.26-017/12/12	J-40.20-03 4/28/16	J-80.15-00 6/28/18
J-21.10-056/21/24	J-40.30-04 4/28/16	J-81.10-02 8/18/21
J-21.15-016/10/13	J-40.35-01 5/29/13	J-81.12-00 9/3/21
J-21.16-026/21/24	J-40.36-02 7/21/17	J-84.05-00 8/30/22
J-21.17-016/10/13	J-40.37-02 7/21/17	J-86.10-00 6/28/18
J-21.20-016/10/13	J-40.38-01 5/20/13	J-90.10-03 6/28/18
J-22.15-036/21/24	J-40.39-00 5/20/13	J-90.20-03 6/28/18
J-22.16-03 7/10/15	J-40.40-02 7/31/19	J-90.21-02 6/28/18
J-22.17-006/21/24	J-45.36-00 7/21/17	J-90.50-00 6/28/18
K-70.20-016/1/16	K-80.32-00 8/17/21	K-80.35-01 9/16/20
K-80.10-029/25/20	K-80.34-00 8/17/21	K-80.37-01 9/16/20
L-5.10-026/5/24	L-20.10-03 7/14/15	L-40.20-02 6/21/12
L-5.15-009/19/22	L-30.10-02 6/11/14	L-70.10-01 5/21/08
L-10.10-026/21/12	L-40.15-01 6/16/11	L-70.20-01 5/21/08
M-1.20-049/25/20	M-9.60-00 2/10/09	M-24.66-00 7/11/17
M-1.40-039/25/20	M-11.10-04 8/2/22	M-40.10-0410/17/23
M-1.60-039/25/20	M-12.10-04 6/28/24	M-40.20-0010/12/07
M-1.80-036/3/11	M-15.10-02 7/17/23	M-40.30-01 7/11/17
M-2.20-03 7/10/15	M-17.10-02 7/3/08	M-40.40-00 9/20/07
M-2.21-00 7/10/15	M-20.10-04 8/2/22	M-40.50-00 9/20/07
M-3.10-049/25/20	M-20.20-02 4/20/15	M-40.60-00 9/20/07
M-3.20-048/2/22	M-20.30-05 6/28/24	M-60.10-01 6/3/11
M-3.30-049/25/20	M-20.40-03 6/24/14	M-60.20-03 8/17/21
M-3.40-049/25/20	M-20.50-02 6/3/11	M-65.10-03 8/17/21
M-3.50-039/25/20	M-24.20-02 4/20/15	M-80.10-01 6/3/11
M-5.10-039/25/20	M-24.40-02 4/20/15	M-80.20-00 6/10/08
M-7.50-011/30/07	M-24.60-04 6/24/14	M-80.30-00 6/10/08
M-9.50-026/24/14	M-24.65-00 7/11/17	

PREVAILING MINIMUM HOURLY WAGE RATES

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: 04/28/2025

Cowlitz County

Trade^	Job Classification	Wage	Holiday	Overtime	Note	Risk Class
Asbestos Abatement Workers	Journey Level	\$59.48	6Z	1M		View
Boilermakers	Journey Level	\$78.89	5N	1C		View
Brick Mason	Brick Finisher	\$48.08	5A	1B		View
Brick Mason	Caulker-Pointer-Cleaner	\$74.09	5A	1B		View
Brick Mason	Journey Level	\$74.09	5A	1B		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	\$16.66		1		View
Carpenters	Acoustical Worker	\$67.80	15J	11U	9L	View
Carpenters	Bridge & Highway Carpenter	\$69.08	15J	11U	9L	View
Carpenters	Floor Layer And Floor Finishers	\$67.97	15J	11U	9L	View
Carpenters	General Carpenter	\$67.80	15J	11U	9L	View
Carpenters	Scaffold/Shoring Erecting & Dismantling	\$67.70	7E	4X	8N	View
Carpenters	Stationary Power Saw	\$67.97	15J	11U	9L	View
Cement Masons	Application of all Composition Mastic	\$77.30	15J	4U		View

Cement Masons	Application of all Epoxy Material	\$76.78	15J	4U	View
Cement Masons	Application of all Plastic Material	\$77.30	15J	4U	View
Cement Masons	Application of Sealing Compound	\$76.78	15J	4U	View
Cement Masons	Application of Underlayment	\$77.30	15J	4U	View
Cement Masons	Building General	\$76.78	15J	4U	View
Cement Masons	Composition or Kalman Floors	\$77.30	15J	4U	View
Cement Masons	Concrete Paving	\$76.78	15J	4U	View
Cement Masons	Curb & Gutter Machine	\$77.30	15J	4U	View
Cement Masons	Curb & Gutter, Sidewalks	\$76.78	15J	4U	View
Cement Masons	Curing Concrete	\$76.78	15J	4U	View
Cement Masons	Finish Colored Concrete	\$77.30	15J	4U	View
Cement Masons	Floor Grinding	\$77.30	15J	4U	View
Cement Masons	Floor Grinding/Polisher	\$76.78	15J	4U	View
Cement Masons	Green Concrete Saw, self-powered	\$77.30	15J	4U	View
Cement Masons	Grouting of all Plates	\$76.78	15J	4U	View
Cement Masons	Grouting of all Tilt-up Panels	\$76.78	15J	4U	View
Cement Masons	Gunite Nozzleman	\$77.30	15J	4U	View
Cement Masons	Hand Powered Grinder	\$77.30	15J	4U	View
Cement Masons	Journey Level	\$76.78	15J	4U	View
Cement Masons	Patching Concrete	\$76.78	15J	4U	View
Cement Masons	Pneumatic Power Tools	\$77.30	15J	4U	View
Cement Masons	Power Chipping & Brushing	\$77.30	15J	4U	View
Cement Masons	Sand Blasting Architectural Finish	\$77.30	15J	4U	View
Cement Masons	Screed & Rodding Machine	\$77.30	15J	4U	View
Cement Masons	Spackling or Skim Coat Concrete	\$76.78	15J	4U	View
Cement Masons	Troweling Machine Operator	\$77.30	15J	4U	View

Cement Masons	Troweling Machine Operator on Colored Slabs	\$77.30	15J	4U		View
Cement Masons	Tunnel Workers	\$77.30	15J	4U		View
Divers & Tenders	Assistant Tender	\$75.35	15J	11T	9I	View
Divers & Tenders	Bell/Vehicle or Submersible Operator Not Under Pressure	\$124.92	15J	11T	9I	View
Divers & Tenders	Dive Master	\$94.29	15J	11T	9I	View
Divers & Tenders	Dive Supervisor	\$94.29	15J	11T	9I	View
Divers & Tenders	Diver Diving	\$124.92	15J	11T	9I	View
Divers & Tenders	Diver Tender	\$80.92	15J	11T	9I	View
Divers & Tenders	Divers Including Stand-By Diver	\$89.29	15J	11T	9I	View
Divers & Tenders	Manifold Operator	\$85.92	15J	11T	9I	View
Divers & Tenders	Manifold Operator Mixed Gas	\$90.92	15J	11T	9I	View
Divers & Tenders	ROV Operator	\$80.92	15J	11T	9I	View
Divers & Tenders	ROV Tender/Technician	\$75.35	15J	11T	9I	View
Dredge Workers	Assistant Engineer	\$72.54	5D	1N	8D	View
Dredge Workers	Assistant Mate (deckhand)	\$67.18	5D	1N	8D	View
Dredge Workers	Boatman (licensed)	\$72.54	5D	1N	8D	View
Dredge Workers	Fill Equipment Operator	\$69.88	5D	1N	8D	View
Dredge Workers	Fireman	\$71.05	5D	1N	8D	View
Dredge Workers	Leverman (hydraulic & Clamshell)	\$75.70	5D	1N	8D	View
Dredge Workers	Mate	\$72.54	5D	1N	8D	View
Dredge Workers	Oiler	\$67.18	5D	1N	8D	View
Dredge Workers	Tenderman (boatman Attending Dredge Plant)	\$71.05	5D	1N	8D	View
Dredge Workers	Welder	\$72.54	5D	1N	8D	View
Drywall Applicator	Journey Level	\$67.80	5A	1B		View
Drywall Tapers	Journey Level	\$66.95	7E	1E		View

Electrical Fixture Maintenance Workers	Journey Level	\$25.23		1		View
Electricians - Inside	Journey Level	\$95.68	5A	1B		View
Electricians - Inside	Journeyman, Welder	\$102.22	5A	1B		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	Journey Level	\$79.16	5A	1B		View
Elevator Constructors	Mechanic	\$115.62	5N	4A		View
Elevator Constructors	Mechanic In Charge	\$125.08	5N	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	\$54.63	6Z	1M	8S	View
Fence Erectors	Fence Laborer	\$54.63	6Z	1M	8S	View
Flaggers	Journey Level	\$54.63	6Z	1M	8S	View
Glaziers	Journey Level	\$76.47	7I	11K		View
Heat & Frost Insulators And Asbestos Workers	Mechanic	\$85.39	5N	1F		View
Heating Equipment Mechanics	Journey Level	\$102.92	7F	1E		View
Hod Carriers & Mason Tenders	Journey Level	\$62.10	5D	1B		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, Foamer Operator	\$16.66		1		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$16.66		1		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$16.66		1		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$16.66		1		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	\$16.66		1		View
Insulation Applicators	Journey Level	\$67.97	15J	11U	9L	View
Ironworkers	Journey Level	\$81.13	15K	11N		View
Laborers	Anchor Machines	\$59.48	6Z	1M		View
Laborers	Application (Including Pot Power Tender For Same), Applying Protective Material By Hand Or Nozzle On Utility Lines Or Storage Tanks On Project	\$58.86	6Z	1M		View
Laborers	Asbestos Removal	\$59.48	6Z	1M		View
Laborers	Asphalt Plant Laborers	\$58.04	6Z	1M		View
Laborers	Asphalt Raker	\$60.00	6Z	1M		View
Laborers	Asphalt Spreaders	\$58.04	6Z	1M		View
Laborers	Ballast Regulators	\$59.48	6Z	1M		View
Laborers	Batch Weighman	\$58.04	6Z	1M		View
Laborers	Bit Grinder	\$59.48	6Z	1M		View

Laborers	Brick Pavers (Dry)	\$58.04	6Z	1M		View
Laborers	Broomers	\$58.04	6Z	1M		View
Laborers	Brush (Power Saw)	\$58.86	6Z	1M		View
Laborers	Brush Burners And Cutters	\$58.04	6Z	1M		View
Laborers	Burners	\$58.86	6Z	1M		View
Laborers	Car And Truck Loaders	\$58.04	6Z	1M		View
Laborers	Carpenter Tender	\$58.04	6Z	1M		View
Laborers	Change-house Man Or Dry Shack Man	\$58.04	6Z	1M		View
Laborers	Chipping Guns	\$58.86	6Z	1M		View
Laborers	Choker Setters	\$58.04	6Z	1M		View
Laborers	Choker Splicer	\$58.86	6Z	1M		View
Laborers	Chuck Tender	\$58.86	6Z	1M		View
Laborers	Clary Power Spreader And Similar Types	\$58.86	6Z	1M		View
Laborers	Clean Up Laborers	\$58.04	6Z	1M		View
Laborers	Clean-up Nozzleman-Green-Cutter (Concrete Rock, Etc.)	\$58.86	6Z	1M		View
Laborers	Concrete Crew, Bull Gang	\$58.86	6Z	1M		View
Laborers	Concrete Laborers	\$58.86	6Z	1M		View
Laborers	Concrete Nozzlemen	\$60.00	6Z	1M		View
Laborers	Concrete Power Buggyman	\$58.86	6Z	1M		View
Laborers	Concrete Saw Operator	\$59.48	6Z	1M		View
Laborers	Concrete Saw Operator (Walls)	\$60.00	6Z	1M		View
Laborers	Confined Space / Hole Watch	\$54.63	6Z	1M	8S	View
Laborers	Crusher Feeder	\$58.86	6Z	1M		View
Laborers	Curing, Concrete	\$58.04	6Z	1M		View
Laborers	Demolition And Wrecking Charred Materials	\$58.86	6Z	1M		View

Laborers	Demolition, Wrecking And Moving Laborers	\$58.04	6Z	1M		View
Laborers	Drill Doctor	\$59.48	6Z	1M		View
Laborers	Drill Operators, Air Tracks, Cat Drills, Wagon Drills, Rubber-mounted Drills And Other Similar Types, Including At Crusher Plants	\$60.00	6Z	1M		View
Laborers	Dry Pack Machine	\$58.86	6Z	1M		View
Laborers	Dry Stack Walls	\$58.04	6Z	1M		View
Laborers	Dumpers, Road Oiling Crew	\$58.04	6Z	1M		View
Laborers	Dumpmen (for Grading Crew)	\$58.04	6Z	1M		View
Laborers	Elevator Feeders	\$58.04	6Z	1M		View
Laborers	Erosion Control Specialist	\$58.04	6Z	1M		View
Laborers	Final Clean-up	\$54.63	6Z	1M	8S	View
Laborers	Fine Graders	\$58.04	6Z	1M		View
Laborers	Fire Watch	\$54.63	6Z	1M	8S	View
Laborers	Form Strippers (Not Swinging Stages)	\$58.04	6Z	1M		View
Laborers	General Laborer	\$58.04	6Z	1M		View
Laborers	Grade Checker	\$60.00	6Z	1M		View
Laborers	Guard Rail, Median Rail, Reference Post Guide Post, Right-of-way Marker	\$58.04	6Z	1M		View
Laborers	Gunite Nozzleman	\$60.00	6Z	1M		View
Laborers	Gunite Nozzleman Tender	\$58.86	6Z	1M		View
Laborers	Gunite or Sand Blasting Pot Tender	\$58.86	6Z	1M		View
Laborers	Hand Placed Sand Blasting (Wet)	\$58.86	6Z	1M		View
Laborers	Handlers Or Mixers Of All Materials Of An Irritating Nature (Including Cement & Lime)	\$58.86	6Z	1M		View
Laborers	Hazardous Waste Worker	\$59.48	6Z	1M		View
Laborers	High Scalers, Strippers & Drillers (covers work in swinging stages, chairs or belts under extreme conditions)	\$60.00	6Z	1M		View

unusual to normal drilling, blasting,
barring down or slopping and stripping

Laborers	Laser Beam	\$60.00	6Z	1M		View
Laborers	Laser Beam (Pipe Laying) - Applicable When Employee Assigned To Move, Set Up, Align	\$60.00	6Z	1M		View
Laborers	Laser Beam (Tunnel) - Applicable When Employee Assigned To Move, Set Up, Align	\$60.00	6Z	1M		View
Laborers	Lead Abatement	\$59.48	6Z	1M		View
Laborers	Leverman Or Aggregate Spreaders (Flaherty And Similar Types)	\$58.04	6Z	1M		View
Laborers	Loading Spotters	\$58.04	6Z	1M		View
Laborers	Loop Installation	\$60.00	6Z	1M		View
Laborers	Manhole Building	\$59.48	6Z	1M		View
Laborers	Material Yard Man	\$58.04	6Z	1M		View
Laborers	Miner - Tunnel	\$60.00	6Z	1M		View
Laborers	Mold Remediation Or Removal	\$59.48	6Z	1M		View
Laborers	Nippers And Timbermen	\$59.48	6Z	1M		View
Laborers	Nuclear Plant Workers - Lead Shield, Power Saw Operators (Bucking & Falling)	\$59.48	6Z	1M		View
Laborers	Pilot Car	\$54.63	6Z	1M	8S	View
Laborers	Pipe Doping & Wrapping	\$58.86	6Z	1M		View
Laborers	Pipe Layer All Types	\$60.00	6Z	1M		View
Laborers	Pittsburgh Chipper Operator Or Similar Types	\$58.04	6Z	1M		View
Laborers	Post Hold Digger, Air, Gas Or Electric	\$58.86	6Z	1M		View
Laborers	Powderman - Tunnel	\$60.00	6Z	1M		View
Laborers	Powderman Tender	\$58.04	6Z	1M		View
Laborers	Power Jacks	\$59.48	6Z	1M		View
Laborers	Pressure Washer	\$58.86	6Z	1M		View

Laborers	Railroad Track Laborers	\$58.04	6Z	1M	View
Laborers	Ribbon Setter, Head	\$58.86	6Z	1M	View
Laborers	Ribbon Setters (Including Steel Forms)	\$58.04	6Z	1M	View
Laborers	Rigger/Signalperson	\$58.04	6Z	1M	View
Laborers	Rip Rap Man (Hand Packed)	\$58.04	6Z	1M	View
Laborers	Rip Rap Man (Head)	\$58.86	6Z	1M	View
Laborers	Road Pump Tender	\$58.04	6Z	1M	View
Laborers	Sand Blasting (Dry)	\$59.48	6Z	1M	View
Laborers	Scaffold Tender	\$58.04	6Z	1M	View
Laborers	Sewer Labor	\$58.04	6Z	1M	View
Laborers	Sewer Timbermen	\$59.48	6Z	1M	View
Laborers	Signalman	\$58.04	6Z	1M	View
Laborers	Skipman	\$58.04	6Z	1M	View
Laborers	Slopers	\$58.04	6Z	1M	View
Laborers	Spraymen	\$58.04	6Z	1M	View
Laborers	Stake Chaser	\$58.04	6Z	1M	View
Laborers	Stake-setter	\$58.86	6Z	1M	View
Laborers	Stockpiler	\$58.04	6Z	1M	View
Laborers	Tampers	\$58.86	6Z	1M	View
Laborers	Tie Back Shoring	\$58.86	6Z	1M	View
Laborers	Timber Faller And Bucker (Hand Labor)	\$58.04	6Z	1M	View
Laborers	Tool Operators - Jackhammer	\$58.86	6Z	1M	View
Laborers	Tool Operators - Paving Breakers	\$58.86	6Z	1M	View
Laborers	Toolroom Man (At Job Site)	\$58.04	6Z	1M	View
Laborers	Track Liners	\$59.48	6Z	1M	View
Laborers	Traffic Control Laborer	\$58.04	6Z	1M	View

Laborers	Traffic Control Supervisor	\$58.86	6Z	1M		View
Laborers	Traffic Control Supervisor	\$58.86	6Z	1M		View
Laborers	Tugger Operator	\$59.48	6Z	1M		View
Laborers	Tunnel Bullgang (Above Ground)	\$60.00	6Z	1M		View
Laborers	Tunnel Chuck Tenders	\$60.00	6Z	1M		View
Laborers	Tunnel Motorman - Dinky Locomotive	\$60.00	6Z	1M		View
Laborers	Tunnel Muckers, Brakemen	\$60.00	6Z	1M		View
Laborers	Tunnel Shield Operator	\$60.00	6Z	1M		View
Laborers	Vibrating Screed	\$60.00	6Z	1M		View
Laborers	Vibrators (All Types)	\$60.00	6Z	1M		View
Laborers	Water Blaster	\$59.48	6Z	1M		View
Laborers	Weight-Man-Crusher (Aggregate When Used)	\$58.04	6Z	1M		View
Laborers	Welder	\$59.48	6Z	1M		View
Laborers - Underground Sewer & Water	General Laborer and Topman	\$60.00	6Z	1M		View
Landscape Construction	Landscape Operator	\$68.46	7B	4G	8U	View
Landscape Construction	Landscaping or Planting Laborer	\$46.95	6Z	1M	8T	View
Landscape Maintenance	Groundskeeper	\$16.66		1		View
Lathers	Journey Level	\$67.80	5A	1B		View
Marble Setters	Journey Level	\$75.09	5A	1B		View
Metal Fabrication (In Shop)	Fitter	\$25.33	7S	1B		View
Metal Fabrication (In Shop)	Machine Operator	\$25.33	7S	1B		View
Metal Fabrication (In Shop)	Welder	\$25.33	7S	1B		View
Millwright	Journey Level	\$80.28	5A	1B		View
Modular Buildings	Journey Level	\$16.66		1		View
Painters	Bridge Painter	\$60.44	7E	11L		View
Painters	Commercial Painter	\$51.86	7E	11L		View

Painters	Industrial Painter	\$53.93	7E	11L	9F	View
Pile Driver	Journey Level	\$69.08	15J	11U	9L	View
Plasterers	Journey Level	\$64.24	5H	1E		View
Playground & Park Equipment Installers	Journey Level	\$16.66		1		View
Plumbers & Pipefitters	Journey Level	\$90.87	5A	1G		View
Power Equipment Operators	Air Filtration Equipment(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Asphalt Plant (any Type) (assistant Engineer Required)(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Asphalt, Burner & Reconditioner (any Type), (asst To Engineer If Required) (group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Asphalt, Extrusion Machine Operator(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Asphalt, Paver (screed Man Required) (group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Asphalt, Pugmill (any Type)(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Asphalt, Raker(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Asphalt, Roller (any Asphalt Mix)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Asphalt, Roto-mill, Pavement Profiler Under 8 Ft Lateral Cut(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Asphalt, Roto-mill, Pavement Profiler, 8 Ft Lateral Cut & Over(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Asphalt, Roto-mill, Pavement Profiler, Groundman(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Asphalt, Screed(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Asphalt, Truck Mounted Spreader, With Screed(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Auger Oiler(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Auto Grader Or "trimmer" (grade Checker Required)(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Back Filling Machine (assistant To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View

<u>Power Equipment Operators</u>	Backhoe, Robotic, Track And Wheel Type Up To And Including 20,000 Lbs. With Any Attachments(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Band Wagons (in Conjunction With Whell Excavator)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Bell Man (any Type Of Comunication) (group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Blade Any Type(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Blade, Robotic(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Boatman(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Boatman, Licensed(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Bobcat, Skid Steer (< 1yd)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Boom Type Lifting Device, 5 Ton Capacity Or Less(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Boring Machine (asst To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Broom Self-propelled, Construction Job Site(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Bulldozer Operator, 20,000 Lbs Or Less, Or 100 Horse Or Less(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Bulldozer Operator, Over 20,000 Lbs And More Than 100 Horse Up To 70,000 Lbs(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Bulldozer Over 70,000 Lbs Up To And Including 120,000 Lbs(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators</u>	Bulldozer Over 120,000 Lbs And Above(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Bulldozer Robotic Equipment(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Cable-plow (any Type)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Cableway 25 Ton & Over(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Cableway Up To 25 Ton(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Canal Trimmer (grade Oiler Required) (group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Cat Drill (john Henry)(group 4)	\$69.70	7B	4G	8U	View

Power Equipment Operators	Cement Pump(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Challenger(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Chip Spreading Machine(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Chippers (asst To Engineer If Required) (group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Churn Drill & Earth Boring Machine(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Combination Heavy Duty Mechanic- welder, When Required To Do Both(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Compactor Self Propelled Without Blade(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Compactor With Blade Self Propelled(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Compactor, Multi-engine(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Compactor, Robotic(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Compressor (any Power) 1,250 Cu Ft And Over Total Capacity(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Compressor Operator (any Power) Under 1,250 Cu Ft Total Capacity(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Concrete Batch Plant And/or Wet Mix (3 Units Or More) (group1)	\$76.09	7B	4G	8U	View
Power Equipment Operators	Concrete Batch Plant And/or Wet Mix Operator (1 & 2 Drums)(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Concrete Batch Plant Quality Control(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete Breaker (assistant To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Concrete Canal Line, Assistant To Engineer Required(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Concrete Curing Machine (riding Type) (group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Concrete Diamond Head Profiler(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Concrete Paving Road Mixer(group 4)	\$69.70	7B	4G	8U	View

Power Equipment Operators	Concrete Planer(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete Saw(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Concrete, Automatic Slip Form Paver (asst To Engineer Required)(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Concrete, Combination Mixer & Compressor Operator, Gunite Work(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Curb Machine Mechanical Berm, Curb And/or Curb And Gutter(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Finishing Machine(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Grout Plant(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Concrete, Grouting Machine(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Joint Machine(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Mixer Mobile(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Concrete, Mixer Single Drum Any Capacity(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Paving Machine 8' And Less (asst To Engineer Required)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Placing Boom(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Pump Truck(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Pump(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Pumpcrete Operator (any Type)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Reinforced Tank Banding Machine (asst To Engineer Required) (group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Concrete, Slip Form Pumps, Power Driven Hydraulic Lifting Device For Concrete Forms(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Spreader(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Telebelt(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Concrete, Treated Base Roller Operator, Oiling(group 5)	\$68.46	7B	4G	8U	View

<u>Power Equipment Operators</u>	Conveyor Operator Or Assistant(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Conveyored Material Hauler(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Bridge Locomotive, Gantry And Overhead(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Carry Deck(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Chicago Boom & Similar Types(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Floating (derrick Barge) 30 Ton But Less Than 150 Ton (asst To Engineer Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Floating 150 Ton But Less Than 250 Ton (asst To Engineer Required) (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Floating 250 Ton And Over (asst To Engineer And Deckhand Required) (group 1)	\$78.25	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Floating Clamshell 3 Cu. Yds. & Over (fireman Or Diesel Electric Engineer Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Floating Clamshell, Dragline Etc. Operator Under 3 Cu. Yds. Or Less Than 30 Ton (diesel-electric Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic 200 Ton Through 399 Ton (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic 50 Ton Through 89 Ton With Luffing Or Tower Attachment(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic 50 Ton Through 89 Tons(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic 90 Ton Through 199 Ton With Luffing Or Tower Attachment (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic 90 Ton Through 199 Ton(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic Crane 200 Ton Through 300 Ton With Luffing Or Tower Attachment(group 1)	\$78.25	7B	4G	8U	View

<u>Power Equipment Operators</u>	Crane, Hydraulic Crane 400 Ton And Over(group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic Crane Over 300 Ton Through 399 Ton With Luffer Or Tower Attachment(group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Hydraulic Under 50 Ton(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom 200 Ton Through 299 Ton, With Over 200' Boom(group 1)	\$78.25	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom 300 Ton Through 399 Ton(group 1)	\$78.25	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom 300 Ton Through 399 Ton, With Over 200' Boom(group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom 50 Ton Through 89 Ton With 150' Boom Or Less(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom 50 Ton Through 89 Ton With Over 150' Boom	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom 90 Ton Through 199 Ton With 150' - 200' Boom(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom Under 50 Ton(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom, 200 Ton Through 299 Ton With 200' Boom Or Less (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Lattice Boom, 90 Ton Through 199 Ton With Over 200' Boom (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Shovel, Dragline Or Clamshell 3 Cu. Yds. But Less Than 5 Cu. Yds. (asst To Engineer Required)(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Tower Crane With 175' Tower Or Less And With Less Than 200' Jib(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Tower Crane With Over 175' Tower Or Over 200' Jib (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Crane, Tugger(group 6)	\$65.24	7B	4G	8U	View

Power Equipment Operators	Crane, Whirley 90 Ton And Over (group 1)	\$76.09	7B	4G	8U	View
Power Equipment Operators	Crane, Whirley Under 90 Ton(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Crusher Feederman(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Crusher Oiler(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Crusher Plant(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Deckhand(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Derrick Operator Under 100 Ton (two Operators Required When Swing Control Is Remote From Hoist)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Diesel-electric Engineer (plant Or Floating)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Directional Drill Over 20,000 Lbs Pullback(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Drill Assistant(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Drill Cat Operator(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Drill Directional Type Less Than 20,000 Lbs Pullback(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Drill Doctor And/or (bit Grinder)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Drill Mud Mixer(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Drill Oscillator(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Drill, Directinal Locator(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Driller, Percussion, Diamond, Core, Cable, Rotary & Similar Type(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Elevating Grader Operator, Tractor Towed Requiring Operator Or Grader(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Elevating Loader Operator (any Type) (group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Elevator To Move Personnel Or Materials(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Excavator Over 80,000 Lbs Through 130,000 Lbs(group 3)	\$73.03	7B	4G	8U	View

<u>Power Equipment Operators</u>	Excavator Operator, Over 20,000 Lbs Through 80,000 Lbs(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Excavator Operator, Over 130,000 Lbs(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Fireman(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Floating, Crane 350 Ton And Over (asst To Engineer And Deckhand Required) (group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators</u>	Fork Lift(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Fork Lift, Over 10 Ton Or Robotic(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Generator Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Grade Checker(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Grade Setter / Layout From Plans(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Grade-all(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Guardrail Machines, I.e. Punch, Auger, Etc.(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Guardrail Punch Oiler(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Hammer Operator (pile Driver)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Heavy Duty Repairman Assistant(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Heavy Equipment Robotics Operator Or Mechanic(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Helicopter Hoist(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Helicopter Radioman (ground)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Helicopter When Used In Erecting Workcrane(group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Hoist Operator, Single Drum(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Hoist, 2 Drums Or More(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Hoist, Stiff Leg, Guy Derrick Or Similar Type, 50 Ton And Over(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Hydraulic Backhoe Track Type Up To And Including 20,000 Lbs(group 5)	\$68.46	7B	4G	8U	View

Power Equipment Operators	Hydraulic Backhoe Wheel Type (any Make)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Hydraulic Pipe Press(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Hydro Axe (loader Mounted Or Similar Type)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Hydrographic Seeder Machine Straw, Pulp Or Seed(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Hydrostatic Pump Operator(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Internal Full Slab Vibrator Operator(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Jack Operator, Elevating Barges, Barge Operator, Self-unloading (asst To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Laser Screed(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Lattice Boom Crane 400 Ton And Over(group 1)	\$80.41	7B	4G	8U	View
Power Equipment Operators	Lime Spreader, Construction Job Site(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Loaders Operator, Front End & Overhead, 25,000 Lbs And Less Than 60,000 Lbs(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Loaders, 120,000 Lbs And Above(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Loaders, 60,000 Lbs And Less Than 120,000 Lbs(group 3)	\$73.03	7B	4G	8U	View
Power Equipment Operators	Loaders, Rubber-tire Type, Less Than 25,000 Lbs(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Log Skidders(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Master Environmental Maintenance Mechanic(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Material Handler(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Mechanic, Heavy Duty(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Mixer Box (c.t.b., Dry Batch, Etc.)(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Oiler(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Parts Man (tool Room)(group 6)	\$65.24	7B	4G	8U	View

Power Equipment Operators	Pavement Grinder And Or Grooving Machine (riding Type)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Pile Driver Operator (not Crane Type) (asst To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Pipe Bending, Cleaning, Doping And Wrapping Machines(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Pipe, Cast In Place Pipe Laying Machine(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Plant Oiler(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Pump (any Power)(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Pump Operator, More Than 5 Pumps (any Size)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Ballast Compactor, Regulator Or Tamper Machines(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Ballast Tamper Multi-purpose(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Rail, Brakeman, Switchman, Motorman(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Rail, Car Mover(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Clip Applicator(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, High Rail Self Loader Truck(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Lo-railer(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Locomotive, 40 Ton And Over (asst To Engineer Required)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Shuttle Car Operator(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Speedswing(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Rail, Switchman(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Rail, Tamping Machine, Mechanical, Self-propelled(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Rail, Track Liner(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Remote Controlled Earth Moving Equipment(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Rigger(group 6)	\$65.24	7B	4G	8U	View

Power Equipment Operators	Roller Grading (not Asphalt)(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Rubber-tired Dozers And Pushers(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Scraper All Types(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Service Oiler (greaser)(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Shovel, Dragline, Clamshell, 5 Yards And Over(group 2)	\$74.18	7B	4G	8U	View
Power Equipment Operators	Side-boom(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Skip Loader, Drag Box(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Stump Grinder (loader Mounted Or Similar Type)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Surface Heater And Planer(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Sweeper Self-propelled, Construction Job Site(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Tar Pot Fireman (power Agitated) Or Not(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Tractor Rubber-tired, 50 Hp Flywheel & Under(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Tractor, Rubber-tired Over 50 Hp Flywheel(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Trenching Machine 3 Ft Depth And Deeper (asst To The Operator If Required)(group 4)	\$69.70	7B	4G	8U	View
Power Equipment Operators	Trenching Machine Operator, Maximum Digging Capacity 3 Ft Depth(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Truck Crane Oiler-driver(group 6)	\$65.24	7B	4G	8U	View
Power Equipment Operators	Truck, All Terrain Or Track Type(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Truck, Barrel Type(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Truck, Boom(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Truck, Off-road Trucks, Articulated And Non-articulated Trucks(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Truck, Offroad Trucks, Articulated And Non-articulated Trucks(group 5)	\$68.46	7B	4G	8U	View
Power Equipment Operators	Truck, Vacuum(group 5)	\$68.46	7B	4G	8U	View

<u>Power Equipment Operators</u>	Truck, Water(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tub Grinder(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel Boring Machine Mechanic(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel Boring Machine(group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel Segment Plant(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel Separation Plant(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel Shaef Loader(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel, Locomotive, Dinkey(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel, Micro Boring Tunnel Machine(group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel, Mucking Machine(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel, Power Jumbo Setting Slip Forms, Etc.(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators</u>	Tunnel, Shield Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Ultra High Pressure Water Jet Cutting Tool System Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Underwater Equipment, Remote Or Otherwise(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Vacuum Blasting Machine Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Water Pulls, Water Wagon(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Welder's Assistant(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Welder; Heavy Duty, Certified Or Not(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators</u>	Welding Machine(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators</u>	Wheel Excavation Any Size (grade Oiler Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators</u>	Wire Mat Or Brooming Machine(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Air Filtration Equipment(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt Plant (any Type) (assistant Engineer Required)(group 2)	\$74.18	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Burner & Reconditioner (any Type), (asst To Engineer If Required) (group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Extrusion Machine Operator(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Paver (screed Man Required) (group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Pugmill (any Type)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Raker(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Roller (any Asphalt Mix)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Roto-mill, Pavement Profiler Under 8 Ft Lateral Cut(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Roto-mill, Pavement Profiler, 8 Ft Lateral Cut & Over(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Roto-mill, Pavement Profiler, Groundman(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Screed(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Asphalt, Truck Mounted Spreader, With Screed(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Auger Oiler(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Auto Grader Or "trimmer" (grade Checker Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Back Filling Machine (assistant To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Backhoe, Robotic, Track And Wheel Type Up To And Including 20,000 Lbs. With Any Attachments(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Band Wagons (in Conjunction With Whell Excavator)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Bell Man (any Type Of Communication) (group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Blade Any Type(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Blade, Robotic(group 2)	\$74.18	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Boatman(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Boatman, Licensed(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Bobcat, Skid Steer (< 1yd)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Boom Type Lifting Device, 5 Ton Capacity Or Less(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Boring Machine (asst To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Broom Self-propelled, Construction Job Site(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Bulldozer Operator, 20,000 Lbs Or Less, Or 100 Horse Or Less(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Bulldozer Operator, Over 20,000 Lbs And More Than 100 Horse Up To 70,000 Lbs(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Bulldozer Over 70,000 Lbs Up To And Including 120,000 Lbs(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Bulldozer Over 120,000 Lbs And Above(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Bulldozer Robotic Equipment(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Cable-plow (any Type)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Cableway 25 Ton & Over(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Cableway Up To 25 Ton(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Canal Trimmer (grade Oiler Required) (group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Cat Drill (john Henry)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Cement Pump(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Challenger(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Chip Spreading Machine(group 5)	\$68.46	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Chippers (asst To Engineer If Required) (group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Churn Drill & Earth Boring Machine(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Combination Heavy Duty Mechanic- welder, When Required To Do Both(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Compactor Self Propelled Without Blade(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Compactor With Blade Self Propelled(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Compactor, Multi-engine(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Compactor, Robotic(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Compressor (any Power) 1,250 Cu Ft And Over Total Capacity(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Compressor Operator (any Power) Under 1,250 Cu Ft Total Capacity(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Batch Plant And/or Wet Mix (3 Units Or More) (group1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Batch Plant And/or Wet Mix Operator (1 & 2 Drums)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Batch Plant Quality Control(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Breaker (assistant To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Canal Line, Assistant To Engineer Required(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Curing Machine (riding Type) (group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Diamond Head Profiler(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Paving Road Mixer(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Planer(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete Saw(group 6)	\$65.24	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Automatic Slip Form Paver (asst To Engineer Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Combination Mixer & Compressor Operator, Gunite Work(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Curb Machine Mechanical Berm, Curb And/or Curb And Gutter(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Finishing Machine(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Grout Plant(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Grouting Machine(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Joint Machine(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Mixer Mobile(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Mixer Single Drum Any Capacity(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Paving Machine 8' And Less (asst To Engineer Required)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Placing Boom(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Pump Truck(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Pump(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Pumpcrete Operator (any Type)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Reinforced Tank Banding Machine (asst To Engineer Required) (group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Slip Form Pumps, Power Driven Hydraulic Lifting Device For Concrete Forms(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Spreader(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Telebelt(group 5)	\$68.46	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Concrete, Treated Base Roller Operator, Oiling(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Conveyor Operator Or Assistant(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Conveyored Material Hauler(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Bridge Locomotive, Gantry And Overhead(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Carry Deck(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Chicago Boom & Similar Types(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Floating (derrick Barge) 30 Ton But Less Than 150 Ton (asst To Engineer Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Floating 150 Ton But Less Than 250 Ton (asst To Engineer Required) (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Floating 250 Ton And Over (asst To Engineer And Deckhand Required) (group 1)	\$78.25	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Floating Clamshell 3 Cu. Yds. & Over (fireman Or Diesel Electric Engineer Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Floating Clamshell, Dragline Etc. Operator Under 3 Cu. Yds. Or Less Than 30 Ton (diesel-electric Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic 200 Ton Through 399 Ton (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic 50 Ton Through 89 Ton With Luffing Or Tower Attachment(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic 50 Ton Through 89 Tons(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic 90 Ton Through 199 Ton With Luffing Or Tower Attachment (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic 90 Ton Through 199 Ton(group 2)	\$74.18	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic Crane 200 Ton Through 300 Ton With Luffing Or Tower Attachment(group 1)	\$78.25	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic Crane 400 Ton And Over(group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic Crane Over 300 Ton Through 399 Ton With Luffer Or Tower Attachment(group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Hydraulic Under 50 Ton(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom 200 Ton Through 299 Ton, With Over 200' Boom(group 1)	\$78.25	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom 300 Ton Through 399 Ton(group 1)	\$78.25	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom 300 Ton Through 399 Ton, With Over 200' Boom(group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom 50 Ton Through 89 Ton With 150' Boom Or Less(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom 50 Ton Through 89 Ton With Over 150' Boom	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom 90 Ton Through 199 Ton With 150' - 200' Boom(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom Under 50 Ton(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom, 200 Ton Through 299 Ton With 200' Boom Or Less (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Lattice Boom, 90 Ton Through 199 Ton With Over 200' Boom (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Shovel, Dragline Or Clamshell 3 Cu. Yds. But Less Than 5 Cu. Yds. (asst To Engineer Required)(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Tower Crane With 175' Tower Or Less And With Less Than 200' Jib(group 2)	\$74.18	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Tower Crane With Over 175' Tower Or Over 200' Jib (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Tugger(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Whirley 90 Ton And Over (group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crane, Whirley Under 90 Ton(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crusher Feederman(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crusher Oiler(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Crusher Plant(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Deckhand(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Derrick Operator Under 100 Ton (two Operators Required When Swing Control Is Remote From Hoist)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Diesel-electric Engineer (plant Or Floating)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Directional Drill Over 20,000 Lbs Pullback(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill Assistant(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill Cat Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill Directional Type Less Than 20,000 Lbs Pullback(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill Doctor And/or (bit Grinder)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill Mud Mixer(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill Oscillator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill, Directinal Locator(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Driller, Percussion, Diamond, Core, Cable, Rotary & Similar Type(group 4)	\$69.70	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Elevating Grader Operator, Tractor Towed Requiring Operator Or Grader(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Elevating Loader Operator (any Type) (group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Elevator To Move Personnel Or Materials(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Excavator Over 80,000 Lbs Through 130,000 Lbs(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Excavator Operator, Over 20,000 Lbs Through 80,000 Lbs(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Excavator Operator, Over 130,000 Lbs(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Fireman(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Floating, Crane 350 Ton And Over (asst To Engineer And Deckhand Required) (group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Fork Lift(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Fork Lift, Over 10 Ton Or Robotic(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Generator Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Grade Checker(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Grade Setter / Layout From Plans(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Grade-all(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Guardrail Machines, I.e. Punch, Auger, Etc.(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Guardrail Punch Oiler(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hammer Operator (pile Driver)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Heavy Duty Repairman Assistant(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Heavy Equipment Robotics Operator Or Mechanic(group 2)	\$74.18	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Helicopter Hoist(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Helicopter Radioman (ground)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Helicopter When Used In Erecting Workcrane(group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hoist Operator, Single Drum(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hoist, 2 Drums Or More(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hoist, Stiff Leg, Guy Derrick Or Similar Type, 50 Ton And Over(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hydraulic Backhoe Track Type Up To And Including 20,000 Lbs(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hydraulic Backhoe Wheel Type (any Make)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hydraulic Pipe Press(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hydro Axe (loader Mounted Or Similar Type)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hydrographic Seeder Machine Straw, Pulp Or Seed(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Hydrostatic Pump Operator(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Internal Full Slab Vibrator Operator(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Jack Operator, Elevating Barges, Barge Operator, Self-unloading (asst To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Laser Screed(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Lattice Boom Crane 400 Ton And Over(group 1)	\$80.41	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Lime Spreader, Construction Job Site(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Loaders Operator, Front End & Overhead, 25,000 Lbs And Less Than 60,000 Lbs(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Loaders, 120,000 Lbs And Above(group 2)	\$74.18	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Loaders, 60,000 Lbs And Less Than 120,000 Lbs(group 3)	\$73.03	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Loaders, Rubber-tire Type, Less Than 25,000 Lbs(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Log Skidders(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Master Environmental Maintenance Mechanic(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Material Handler(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Mechanic, Heavy Duty(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Mixer Box (c.t.b., Dry Batch, Etc.)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Oiler(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Parts Man (tool Room)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Pavement Grinder And Or Grooving Machine (riding Type)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Pile Driver Operator (not Crane Type) (asst To Engineer Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Pipe Bending, Cleaning, Doping And Wrapping Machines(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Pipe, Cast In Place Pipe Laying Machine(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Plant Oiler(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Pump (any Power)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Pump Operator, More Than 5 Pumps (any Size)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Ballast Compactor, Regulator Or Tamper Machines(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Ballast Tamper Multi- purpose(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Brakeman, Switchman, Motorman(group 6)	\$65.24	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Car Mover(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Clip Applicator(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, High Rail Self Loader Truck(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Lo-railer(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Locomotive, 40 Ton And Over (asst To Engineer Required)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Shuttle Car Operator(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Speedswing(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Switchman(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Tamping Machine, Mechanical, Self-propelled(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rail, Track Liner(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Remote Controlled Earth Moving Equipment(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rigger(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Roller Grading (not Asphalt)(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Rubber-tired Dozers And Pushers(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Scraper All Types(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Service Oiler (greaser)(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Shovel, Dragline, Clamshell, 5 Yards And Over(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Side-boom(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Skip Loader, Drag Box(group 4)	\$69.70	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Stump Grinder (loader Mounted Or Similar Type)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Surface Heater And Planer(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Sweeper Self-propelled, Construction Job Site(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tar Pot Fireman (power Agitated) Or Not(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tractor Rubber-tired, 50 Hp Flywheel & Under(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tractor, Rubber-tired Over 50 Hp Flywheel(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Trenching Machine 3 Ft Depth And Deeper (asst To The Operator If Required)(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Trenching Machine Operator, Maximum Digging Capacity 3 Ft Depth(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck Crane Oiler-driver(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck, All Terrain Or Track Type(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck, Barrel Type(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck, Boom(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck, Off-road Trucks, Articulated And Non-articulated Trucks(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck, Offroad Trucks, Articulated And Non-articulated Trucks(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck, Vacuum(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Truck, Water(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tub Grinder(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel Boring Machine Mechanic(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel Boring Machine(group 1)	\$76.09	7B	4G	8U	View

<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel Segment Plant(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel Separation Plant(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel Shaef Loader(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel, Locomotive, Dinkey(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel, Micro Boring Tunnel Machine(group 1)	\$76.09	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel, Mucking Machine(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel, Power Jumbo Setting Slip Forms, Etc.(group 5)	\$68.46	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Tunnel, Shield Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Ultra High Pressure Water Jet Cutting Tool System Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Underwater Equipment, Remote Or Otherwise(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Vacuum Blasting Machine Operator(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Water Pulls, Water Wagon(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Welder's Assistant(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Welder; Heavy Duty, Certified Or Not(group 4)	\$69.70	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Welding Machine(group 6)	\$65.24	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Wheel Excavation Any Size (grade Oiler Required)(group 2)	\$74.18	7B	4G	8U	View
<u>Power Equipment Operators- Underground Sewer & Water</u>	Wire Mat Or Brooming Machine(group 6)	\$65.24	7B	4G	8U	View
<u>Power Line Clearance Tree Trimmers</u>	Journey Level In Charge	\$64.20	5A	4A		View
<u>Power Line Clearance Tree Trimmers</u>	Spray Person	\$60.74	5A	4A		View
<u>Power Line Clearance Tree Trimmers</u>	Tree Equipment Operator	\$64.20	5A	4A		View

<u>Power Line Clearance Tree Trimmers</u>	Tree Trimmer	\$57.29	5A	4A	View
<u>Power Line Clearance Tree Trimmers</u>	Tree Trimmer Groundperson	\$43.05	5A	4A	View
<u>Refrigeration & Air Conditioning Mechanics</u>	Journey Level	\$95.46	5A	1G	View
Residential Brick Mason	Journey Level	\$23.02		1	View
Residential Carpenters	Journey Level	\$26.70		1	View
Residential Cement Masons	Journey Level	\$16.66		1	View
Residential Drywall Applicators	Journey Level	\$36.07		1	View
Residential Drywall Tapers	Journey Level	\$16.66		1	View
Residential Electricians	Journey Level	\$30.53		1	View
Residential Glaziers	Journey Level	\$42.76		1	View
Residential Insulation Applicators	Journey Level	\$28.53		1	View
Residential Laborers	Journey Level	\$46.95	6Z	1M 8T	View
Residential Marble Setters	Journey Level	\$23.02		1	View
Residential Painters	Journey Level	\$51.86	7E	11L	View
Residential Plumbers & Pipefitters	Journey Level	\$51.05		1	View
Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$102.92	7F	1E	View
Residential Sheet Metal Workers	Journey Level	\$102.92	7F	1E	View
Residential Soft Floor Layers	Journey Level	\$61.44	7E	11Q	View
Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$41.11		1	View
Residential Stone Masons	Journey Level	\$23.02		1	View
Residential Terrazzo Workers	Journey Level	\$16.66		1	View
Residential Terrazzo/Tile Finishers	Journey Level	\$36.64		1	View
Residential Tile Setters	Journey Level	\$16.66		1	View
<u>Roofers</u>	Journey Level	\$67.45	5A	3H	View
<u>Roofers</u>	Using Irritable Bituminous Materials	\$70.45	5A	3H	View

Sheet Metal Workers	Journey Level (Field or Shop)	\$102.92	7F	1E	View	
Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	\$85.39	5N	1F	View	
Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	\$85.39	5N	1F	View	
Sign Makers & Installers (Electrical)	Journey Level	\$16.88		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	\$75.89	7J	1R	View	
Stage Rigging Mechanics (Non Structural)	Journey Level	\$16.66		1	View	
Stone Masons	Journey Level	\$74.09	5A	1B	View	
Street And Parking Lot Sweeper Workers	Journey Level	\$16.66		1	View	
Surveyors	Chain Person	\$65.24	7B	1B	9H	View
Surveyors	Instrument Person	\$68.46	7B	1B	9H	View
Surveyors	Party Chief	\$74.18	7B	1B	9H	View
Telecommunication Technicians	Journey Level	\$79.16	5A	1B	View	
Telephone Line Construction - Outside	Cable Splicer	\$41.35	5A	2B	View	
Telephone Line Construction - Outside	Hole Digger/Ground Person	\$27.31	5A	2B	View	
Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$34.53	5A	2B	View	
Telephone Line Construction - Outside	Telephone Lineperson	\$39.07	5A	2B	View	
Terrazzo Workers	Journey Level	\$64.27	5A	1B	View	
Tile Setters	Journey Level	\$64.27	5A	1B	View	
Tile, Marble & Terrazzo Finishers	Finishers	\$47.95	5A	1B	View	
Traffic Control Stripers	Journey Level	\$88.42	15N	1K	View	
Truck Drivers	Asphalt Mix Over 10 Yards	\$49.39	5A	1B	View	
Truck Drivers	Asphalt Mix To 10 Yards	\$49.24	5A	1B	View	

Truck Drivers	Dump Truck	\$49.24	5A	1B	View
Truck Drivers	Dump Truck And Trailer	\$49.39	5A	1B	View
Truck Drivers	Other Trucks	\$49.39	5A	1B	View
Truck Drivers - Ready Mix	Transit Mix 5 cubic yards and under	\$49.24	5A	1B	View
Truck Drivers - Ready Mix	Transit Mix over 11 cubic yards up to 15 cubic yards	\$49.85	5A	1B	View
Truck Drivers - Ready Mix	Transit Mix over 5 cubic yards up to 7 cubic yards	\$49.39	5A	1B	View
Truck Drivers - Ready Mix	Transit Mix Over 7 cubic yards up to 11 cubic yards	\$49.54	5A	1B	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	\$17.97		1	View

Washington State Department of Labor and Industries
Policy Statement
(Regarding the Production of "Standard" or "Non-standard" Items)

Below is the department's (State L&I's) list of criteria to be used in determining whether a prefabricated item is "standard" or "non-standard". For items not appearing on WSDOT's predetermined list, these criteria shall be used by the Contractor (and the Contractor's subcontractors, agents to subcontractors, suppliers, manufacturers, and fabricators) to determine coverage under RCW 39.12. The production, in the State of Washington, of non-standard items is covered by RCW 39.12, and the production of standard items is not. The production of any item outside the State of Washington is not covered by RCW 39.12.

1. Is the item fabricated for a public works project? If not, it is not subject to RCW 39.12. If it is, go to question 2.
2. Is the item fabricated on the public works jobsite? If it is, the work is covered under RCW 39.12. If not, go to question 3.
3. Is the item fabricated in an assembly/fabrication plant set up for, and dedicated primarily to, the public works project? If it is, the work is covered by RCW 39.12. If not, go to question 4.
4. Does the item require any assembly, cutting, modification or other fabrication by the supplier? If not, the work is not covered by RCW 39.12. If yes, go to question 5.
5. Is the prefabricated item intended for the public works project typically an inventory item which could reasonably be sold on the general market? If not, the work is covered by RCW 39.12. If yes, go to question 6.
6. Does the specific prefabricated item, generally defined as standard, have any unusual characteristics such as shape, type of material, strength requirements, finish, etc? If yes, the work is covered under RCW 39.12.

Any firm with questions regarding the policy, WSDOT's Predetermined List, or for determinations of covered and non-covered workers shall be directed to State L&I at (360) 902-5330.

**WSDOT's
Predetermined List for
Suppliers - Manufactures - Fabricator**

Below is a list of potentially prefabricated items, originally furnished by WSDOT to Washington State Department of Labor and Industries, that may be considered non-standard and therefore covered by the prevailing wage law, RCW 39.12. Items marked with an X in the "YES" column should be considered to be non-standard and therefore covered by RCW 39.12. Items marked with an X in the "NO" column should be considered to be standard and therefore not covered. Of course, exceptions to this general list may occur, and in that case shall be evaluated according to the criteria described in State and L&I's policy statement.

ITEM DESCRIPTION	YES	NO
1. Metal rectangular frames, solid metal covers, herringbone grates, and bi-directional vaned grates for Catch Basin Types 1, 1L, 1P, and 2 and Concrete Inlets. See Std. Plans		X
2. Metal circular frames (rings) and covers, circular grates, and prefabricated ladders for Manhole Types 1, 2, and 3, Drywell Types 1, 2, and 3 and Catch Basin Type 2. See Std. Plans		X
3. Prefabricated steel grate supports and welded grates, metal frames and dual vaned grates, and Type 1, 2, and 3 structural tubing grates for Drop Inlets. See Std. Plans.		X
4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.		X
5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.		X
6. Corrugated Steel Pipe - Steel lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, 1 thru 5.		X
7. Corrugated Aluminum Pipe - Aluminum lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, #5.		X

ITEM DESCRIPTION	YES	NO
8. Anchor Bolts & Nuts - Anchor Bolts and Nuts, for mounting sign structures, luminaries and other items, shall be made from commercial bolt stock. See Contract Plans and Std. Plans for size and material type.		X
9. Aluminum Pedestrian Handrail - Pedestrian handrail conforming to the type and material specifications set forth in the contract plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).	X	
10. Major Structural Steel Fabrication - Fabrication of major steel items such as trusses, beams, girders, etc., for bridges.	X	
11. Minor Structural Steel Fabrication - Fabrication of minor steel Items such as special hangers, brackets, access doors for structures, access ladders for irrigation boxes, bridge expansion joint systems, etc., involving welding, cutting, punching and/or boring of holes. See Contact Plans for item description and shop drawings.	X	
12. Aluminum Bridge Railing Type BP - Metal bridge railing conforming to the type and material specifications set forth in the Contract Plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).		X
13. Concrete Piling--Precast-Prestressed concrete piling for use as 55 and 70 ton concrete piling. Concrete to conform to Section 9-19.1 of Std. Spec..	X	
14. Precast Manhole Types 1, 2, and 3 with cones, adjustment sections and flat top slabs. See Std. Plans.		X
15. Precast Drywell Types 1, 2, and with cones and adjustment Sections. See Std. Plans.		X
16. Precast Catch Basin - Catch Basin type 1, 1L, 1P, and 2 With adjustment sections. See Std. Plans.		X

ITEM DESCRIPTION	YES	NO
17. Precast Concrete Inlet - with adjustment sections, See Std. Plans		X
18. Precast Drop Inlet Type 1 and 2 with metal grate supports. See Std. Plans.		X
19. Precast Grate Inlet Type 2 with extension and top units. See Std. Plans		X
20. Metal frames, vaned grates, and hoods for Combination Inlets. See Std. Plans		X
21. Precast Concrete Utility Vaults - Precast Concrete utility vaults of various sizes. Used for in ground storage of utility facilities and controls. See Contract Plans for size and construction requirements. Shop drawings are to be provided for approval prior to casting		X
22. Vault Risers - For use with Valve Vaults and Utilities X Vaults.		X
23. Valve Vault - For use with underground utilities. See Contract Plans for details.		X
24. Precast Concrete Barrier - Precast Concrete Barrier for use as new barrier or may also be used as Temporary Concrete Barrier. Only new state approved barrier may be used as permanent barrier.		X
25. Reinforced Earth Wall Panels – Reinforced Earth Wall Panels in size and shape as shown in the Plans. Fabrication plant has annual approval for methods and materials to be used. See Shop Drawing. Fabrication at other locations may be approved, after facilities inspection, contact HQ. Lab.	X	
26. Precast Concrete Walls - Precast Concrete Walls - tilt-up wall panel in size and shape as shown in Plans. Fabrication plant has annual approval for methods and materials to be used	X	

ITEM DESCRIPTION	YES	NO
27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.	X	
28. 12, 18 and 26 inch Standard Precast Prestressed Girder – Standard Precast Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
29. Prestressed Concrete Girder Series 4-14 - Prestressed Concrete Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
30. Prestressed Tri-Beam Girder - Prestressed Tri-Beam Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
31. Prestressed Precast Hollow-Core Slab – Precast Prestressed Hollow-core slab for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A.	X	
32. Prestressed-Bulb Tee Girder - Bulb Tee Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
33. Monument Case and Cover See Std. Plan.		X

ITEM DESCRIPTION	YES	NO
34. Cantilever Sign Structure - Cantilever Sign Structure fabricated from steel tubing meeting AASHTO-M-183. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
35. Mono-tube Sign Structures - Mono-tube Sign Bridge fabricated to details shown in the Plans. Shop drawings for approval are required prior to fabrication.	X	
36. Steel Sign Bridges - Steel Sign Bridges fabricated from steel tubing meeting AASHTO-M-138 for Aluminum Alloys. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
37. Steel Sign Post - Fabricated Steel Sign Posts as detailed in Std Plans. Shop drawings for approval are to be provided prior to fabrication		X
38. Light Standard-Prestressed - Spun, prestressed, hollow concrete poles.	X	
39. Light Standards - Lighting Standards for use on highway illumination systems, poles to be fabricated to conform with methods and materials as specified on Std. Plans. See Special Provisions for pre-approved drawings.	X	
40. Traffic Signal Standards - Traffic Signal Standards for use on highway and/or street signal systems. Standards to be fabricated to conform with methods and material as specified on Std. Plans. See Special Provisions for pre-approved drawings	X	
41. Precast Concrete Sloped Mountable Curb (Single and DualFaced) See Std. Plans.		X

ITEM DESCRIPTION	YES	NO
42. Traffic Signs - Prior to approval of a Fabricator of Traffic Signs, the sources of the following materials must be submitted and approved for reflective sheeting, legend material, and aluminum sheeting. NOTE: *** Fabrication inspection required. Only signs tagged "Fabrication Approved" by WSDOT Sign Fabrication Inspector to be installed	X	X
	Custom Message	Std Signing Message
43. Cutting & bending reinforcing steel		X
44. Guardrail components	X	X
	Custom End Sec	Standard Sec
45. Aggregates/Concrete mixes	Covered by WAC 296-127-018	
46. Asphalt	Covered by WAC 296-127-018	
47. Fiber fabrics		X
48. Electrical wiring/components		X
49. treated or untreated timber pile		X
50. Girder pads (elastomeric bearing)	X	
51. Standard Dimension lumber		X
52. Irrigation components		X

ITEM DESCRIPTION	YES	NO
53. Fencing materials		X
54. Guide Posts		X
55. Traffic Buttons		X
56. Epoxy		X
57. Cribbing		X
58. Water distribution materials		X
59. Steel "H" piles		X
60. Steel pipe for concrete pile casings		X
61. Steel pile tips, standard		X
62. Steel pile tips, custom	X	

Prefabricated items specifically produced for public works projects that are prefabricated in a county other than the county wherein the public works project is to be completed, the wage for the offsite prefabrication shall be the applicable prevailing wage for the county in which the actual prefabrication takes place.

It is the manufacturer of the prefabricated product to verify that the correct county wage rates are applied to work they perform.

See RCW [39.12.010](#)

(The definition of "locality" in RCW [39.12.010](#)(2) contains the phrase "wherein the physical work is being performed." The department interprets this phrase to mean the actual work site.

WSDOT's List of State Occupations not applicable to Heavy and Highway Construction Projects

This project is subject to the state hourly minimum rates for wages and fringe benefits in the contract provisions, as provided by the state Department of Labor and Industries.

The following list of occupations, is comprised of those occupations that are not normally used in the construction of heavy and highway projects.

When considering job classifications for use and / or payment when bidding on, or building heavy and highway construction projects for, or administered by WSDOT, these Occupations will be excepted from the included "Washington State Prevailing Wage Rates For Public Work Contracts" documents.

- Building Service Employees
- Electrical Fixture Maintenance Workers
- Electricians - Motor Shop
- Heating Equipment Mechanics
- Industrial Engine and Machine Mechanics
- Industrial Power Vacuum Cleaners
- Inspection, Cleaning, Sealing of Water Systems by Remote Control
- Laborers - Underground Sewer & Water
- Machinists (Hydroelectric Site Work)
- Modular Buildings
- Playground & Park Equipment Installers
- Power Equipment Operators - Underground Sewer & Water
- Residential *** ALL ASSOCIATED RATES ***
- Sign Makers and Installers (Non-Electrical)
- Sign Makers and Installers (Electrical)
- Stage Rigging Mechanics (Non Structural)

The following occupations may be used only as outlined in the preceding text concerning "WSDOT's list for Suppliers - Manufacturers - Fabricators"

- Fabricated Precast Concrete Products
- Metal Fabrication (In Shop)

Definitions for the Scope of Work for prevailing wages may be found at the Washington State Department of Labor and Industries web site and in WAC Chapter 296-127.

Washington State Department of Labor and Industries
Policy Statements
(Regarding Production and Delivery of Gravel, Concrete, Asphalt, etc.)

WAC 296-127-018 Agency filings affecting this section

Coverage and exemptions of workers involved in the production and delivery of gravel, concrete, asphalt, or similar materials.

(1) The materials covered under this section include but are not limited to: Sand, gravel, crushed rock, concrete, asphalt, or other similar materials.

(2) All workers, regardless of by whom employed, are subject to the provisions of chapter 39.12 RCW when they perform any or all of the following functions:

(a) They deliver or discharge any of the above-listed materials to a public works project site:

(i) At one or more point(s) directly upon the location where the material will be incorporated into the project; or

(ii) At multiple points at the project; or

(iii) Adjacent to the location and coordinated with the incorporation of those materials.

(b) They wait at or near a public works project site to perform any tasks subject to this section of the rule.

(c) They remove any materials from a public works construction site pursuant to contract requirements or specifications (e.g., excavated materials, materials from demolished structures, clean-up materials, etc.).

(d) They work in a materials production facility (e.g., batch plant, borrow pit, rock quarry, etc.) which is established for a public works project for the specific, but not necessarily exclusive, purpose of supplying materials for the project.

(e) They deliver concrete to a public works site regardless of the method of incorporation.

(f) They assist or participate in the incorporation of any materials into the public works project.

(3) All travel time that relates to the work covered under subsection (2) of this section requires the payment of prevailing wages. Travel time includes time spent waiting to load, loading, transporting, waiting to unload, and delivering materials. Travel time would include all time spent in travel in support of a public works project whether the vehicle is empty or full. For example, travel time spent returning to a supply source to obtain another load of material for use on a public works site or returning to the public works site to obtain another load of excavated material is time spent in travel that is subject to prevailing wage. Travel to a supply source, including travel from a public works site, to obtain materials for use on a private project would not be travel subject to the prevailing wage.

(4) Workers are not subject to the provisions of chapter 39.12 RCW when they deliver materials to a stockpile.

(a) A "stockpile" is defined as materials delivered to a pile located away from the site of incorporation such that the stockpiled materials must be physically moved from the stockpile and transported to another location on the project site in order to be incorporated into the project.

(b) A stockpile does not include any of the functions described in subsection (2)(a) through (f) of this section; nor does a stockpile include materials delivered or distributed to multiple locations upon the project site; nor does a stockpile include materials dumped at the place of incorporation, or adjacent to the location and coordinated with the incorporation.

(5) The applicable prevailing wage rate shall be determined by the locality in which the work is performed. Workers subject to subsection (2)(d) of this section, who produce such materials at an off-site facility shall be paid the applicable prevailing wage rates for the county in which the off-site facility is located. Workers subject to subsection (2) of this section, who deliver such materials to a public works project site shall be paid the applicable prevailing wage rates for the county in which the public works project is located.

[Statutory Authority: Chapter 39.12 RCW, RCW 43.22.051 and 43.22.270. 08-24-101, § 296-127-018, filed 12/2/08, effective 1/2/09. Statutory Authority: Chapters 39.04 and 39.12 RCW and RCW 43.22.270. 92-01-104 and 92-08-101, § 296-127-018, filed 12/18/91 and 4/1/92, effective 8/31/92.]

Benefit Code Key – Effective 3/5/2025 thru 8/30/2025

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.

Benefit Code Key – Effective 3/5/2025 thru 8/30/2025

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.

Benefit Code Key – Effective 3/5/2025 thru 8/30/2025

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.

Benefit Code Key – Effective 3/5/2025 thru 8/30/2025

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.

PLANS

Appendices
(***)**

The following appendices are attached and made a part of this contract:

- Appendix A – Topographic Survey**
- Appendix B – HPA from Washington State Department of Fish and Wildlife**
- Appendix C – Nationwide Permit 14 from US Army Corps of Engineers**
- Appendix D – Construction Stormwater General Permit from Washington State Department of Ecology**
- Appendix E – Geotechnical Report**
- Appendix F – Applicable Standard Plans**

APPENDIX A

Topographic Survey

SITE PHOTOS:

PHOTOS WERE TAKEN ON 10/10/2019, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY



TAKEN ON EAST SIDE OF THE ROAD, LOOKING SOUTHWESTERLY AT THE BOX CULVERT



TAKEN NEAR THE WEST END OF THE CULVERT, LOOKING EAST (DOWNSTREAM) THROUGH THE BOX



TAKEN ON EAST SIDE OF THE SITE, LOOKING NORTHERLY AT THE CREEK



TAKEN NEAR THE WEST END OF THE CULVERT, LOOKING WESTERLY AT THE CREEK

FOUND MONUMENT TABLE

POINT	NORTHING	EASTING	DESCRIPTION	ORIGIN
124	49185.14	16017.64	1" IRON PIPE	UNKNOWN
524	46545.27	15964.41	1 1/2" IRON PIPE	UNKNOWN
525	47865.11	15991.02	5/8" IRON ROD WITH YPC MARKED "LS 10997"	3/ROS/158

SURVEY CONTROL TABLE

POINT	NORTHING	EASTING	DESCRIPTION	ORIGIN	ELEVATION
1	51799.11	24049.71	MAGNETIC NAIL IN ASPHALT	36/ROS/115	51.07
13	50465.23	15879.08	MAGNETIC NAIL IN ASPHALT	36/ROS/115	216.83
309	47553.00	16012.34	5/8" IRON ROD WITH RPC MARKED "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	92.76
310	47664.81	15856.81	5/8" IRON ROD WITH RPC MARKED "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	95.83
311	47582.61	15426.90	5/8" IRON ROD WITH RPC MARKED "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	128.94
315	47493.09	15827.91	5/8" IRON ROD WITH RPC MARKED "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	85.73
320	47493.22	15658.08	5/8" IRON ROD WITH RPC MARKED "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	85.87
321	47778.39	15529.06	5/8" IRON ROD WITH RPC MARKED "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	132.38

PURPOSE OF SURVEY

THE PURPOSE OF THIS SURVEY WAS TO PROVIDE TOPOGRAPHIC DATA AND RIGHT OF WAY RESOLUTION FOR A PORTION OF GARLOCK ROAD, FOR PURPOSES OF DESIGN.

COUNTY PROJECT NUMBER: 1779

VERTICAL DATUM

ELEVATION DATUM: NAVD 88
BENCHMARK: SURVEY CONTROL #309
LOCATION: AS SHOWN HEREON
ELEVATION: 92.76'

BASIS OF BEARINGS

ASSUMED, BASED ON PREVIOUS COWLITZ COUNTY PROJECT #1802 DELAMETER ROAD RECONSTRUCTION, SAID PROJECT HAVING CONTROL POINTS 1 AND 13 BEING S80°43'41" W, 8278.79'. THE LOCATION OF CONTROL POINTS 1 AND 13 ARE DEPICTED IN THE SURVEY CONTROL TABLE AND SHOWN HEREON. FOR MORE INFORMATION, SEE RECORD OF SURVEY BY PAUL GALLI RECORDED IN VOLUME 36 PAGE 115 AT THE COWLITZ COUNTY AUDITORS OFFICE.

RELATIVE VERTICAL POSITIONAL ACCURACY

THE CONTOURS SHOWN HEREON ARE FROM DIRECT FIELD OBSERVATIONS. THE RELATIVE VERTICAL POSITIONAL ACCURACY OF THE CONTOURS AND SPOT ELEVATIONS SHOWN HEREON MEETS THOSE STANDARDS DEFINED BY THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) PER THAT CERTAIN DOCUMENT ENTITLED "NSPS MODEL STANDARDS FOR TOPOGRAPHIC SURVEYS" (LABELED AS SECTION E), APPROVED 3/12/2002. THOSE STANDARDS ARE AS FOLLOWS FOR A 1" CONTOUR MAP.

CONTOUR LINES AT 1" INTERVALS: ±0.65" VERTICAL POSITIONAL ACCURACY

SPOT ELEVATIONS FOR WELL DEFINED PLANIMETRIC FEATURES: ±0.10" VERTICAL POSITIONAL ACCURACY

METHOD OF SURVEY

FIELD SURVEYS WERE ACCOMPLISHED UTILIZING STANDARD CLOSED TRAVERSE AND RADIAL SURVEY METHODS, AS WELL AS STANDARD GLOBAL POSITIONING SYSTEM (GPS) NETWORK RTK GPS METHODS (60 SECOND OBSERVATIONS, MINIMUM). MEASUREMENTS WERE PERFORMED USING A TOPCON 3-SECOND TOTAL STATION AND TOPCON GR3, SURVEY GRADE GPS UNITS. THE ANGULAR CLOSURE OF TRAVERSE MEETS STANDARDS AS SET FORTH IN WAC332-130-090, LINEAR CLOSURE AFTER ADJUSTMENT IS GREATER THAN 1:10000.

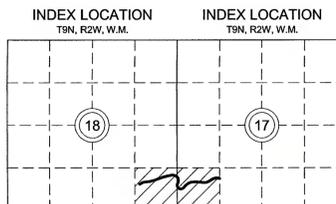
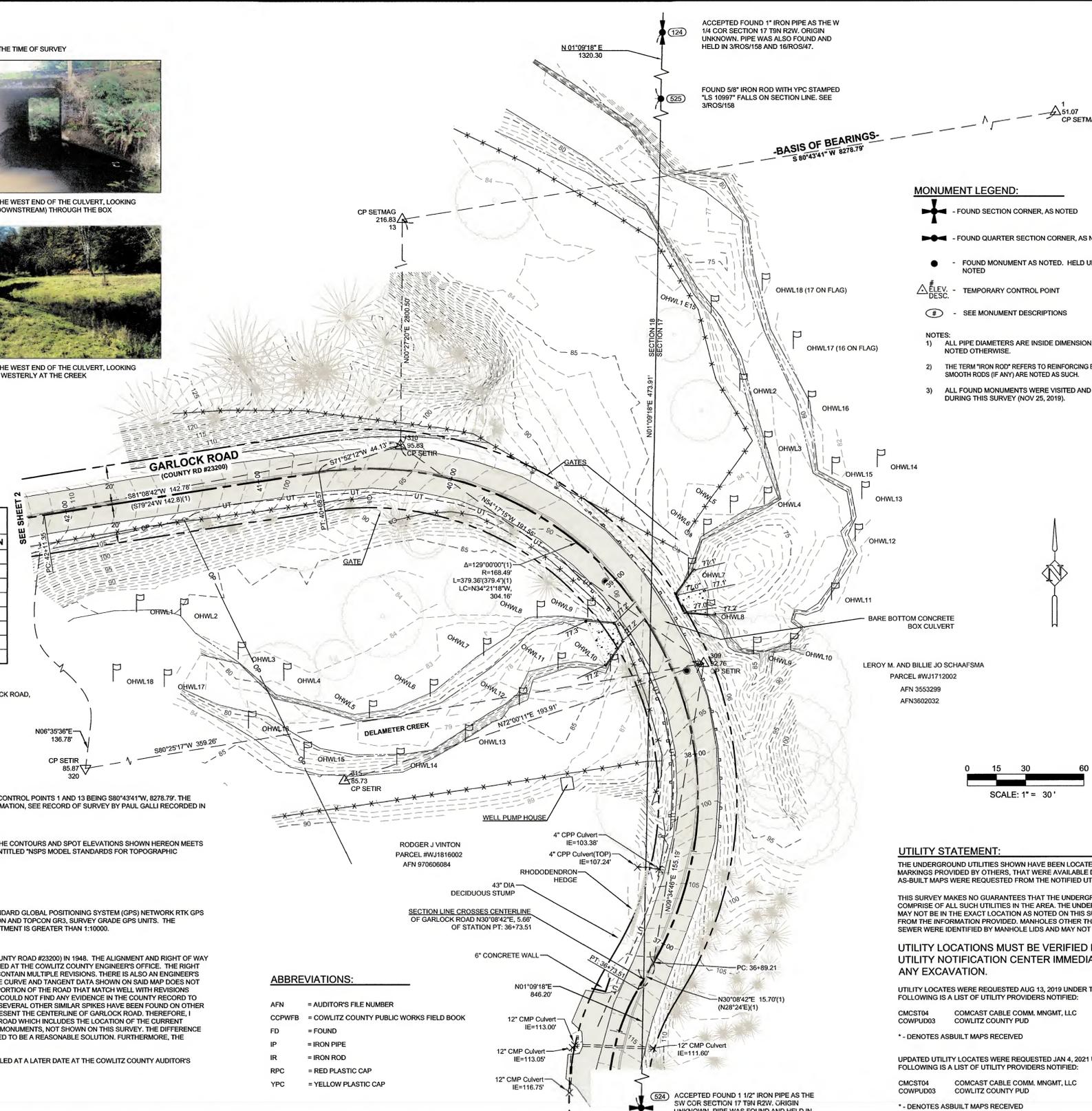
NARRATIVE

GARLOCK ROAD WAS PREVIOUSLY KNOWN AS WILLIAM JACKSON ROAD IN 1885. THE NAME WAS CHANGED TO GARLOCK ROAD (COUNTY ROAD #23200) IN 1948. THE ALIGNMENT AND RIGHT OF WAY SHOWN HEREON, IS REPRESENTATIVE OF THE COUNTY ENGINEER'S SURVEY FIELD NOTES FOUND IN CCPWFB 1948-01 WHICH IS FILED AT THE COWLITZ COUNTY ENGINEER'S OFFICE. THE RIGHT OF WAY WIDTH IS 40 FEET PER THE ORIGINAL WAIVERS RECORDED IN 1948, 1949 AND 1950. IT IS NOTeworthy THAT SAID NOTES CONTAIN MULTIPLE REVISIONS. THERE IS ALSO AN ENGINEER'S MAP FILED AT THE COUNTY ENGINEER'S OFFICE THAT REPRESENTS ONE ITERATION OF SAID NOTES. HOWEVER, A PORTION OF THE CURVE AND TANGENT DATA SHOWN ON SAID MAP DOES NOT FIT WITH THE FOUND MONUMENTS NOR THE LOCATION OF THE EXISTING PAVEMENT. I FOUND MULTIPLE PIPES ON THE EASTERLY PORTION OF THE ROAD THAT MATCH WELL WITH REVISIONS MADE IN THE AFORESAID COUNTY FIELD NOTES AS WELL AS 8" SPIKES FOUND AT THE WESTERLY PORTION OF THE ROAD. I COULD NOT FIND ANY EVIDENCE IN THE COUNTY RECORD TO INDICATE WHERE SAID SPIKES CAME FROM. HOWEVER, SINCE THEY MATCH THE ORIGINAL NOTES (CCPWFB 1948-01) SO WELL AND SEVERAL OTHER SIMILAR SPIKES HAVE BEEN FOUND ON OTHER PREVIOUS COUNTY PROJECTS, I WILL ASSUME THEY WERE SET BY THE COWLITZ COUNTY SURVEY CREW AT SOME POINT TO REPRESENT THE CENTERLINE OF GARLOCK ROAD. THEREFORE, I HELD THEIR POSITIONS AS A RETRACEMENT OF THE CENTERLINE. NO MONUMENTS WERE FOUND IN THE MIDDLE PORTION OF THE ROAD WHICH INCLUDES THE LOCATION OF THE CURRENT PROJECT SHOWN HEREON. I SCALED THE 1948 RECORD DATA WITHIN THIS PORTION OF THE ROAD BY USING THE NEAREST FOUND MONUMENTS, NOT SHOWN ON THIS SURVEY. THE DIFFERENCE OF THE RECORD AND MEASURED DISTANCES BETWEEN SAID MONUMENTS WAS WITHIN 0.5'. SO USING A SCALED APPROACH SEEMED TO BE A REASONABLE SOLUTION. FURTHERMORE, THE EXISTING PAVEMENT THROUGHOUT THE ENTIRETY OF GARLOCK ROAD APPEARS TO MATCH QUITE WELL WITH MY RESOLUTION.

FOR A MORE DETAILED DEPICTION OF THE HISTORICAL RECORD AND MY RESOLUTION, REFER TO MY RECORD OF SURVEY TO BE FILED AT A LATER DATE AT THE COWLITZ COUNTY AUDITORS OFFICE.

NOTES

1) SEE CCPWFB 1948-01, 2019-01 AND 2019-02



- MONUMENT LEGEND:**
- FOUND SECTION CORNER, AS NOTED
 - FOUND QUARTER SECTION CORNER, AS NOTED
 - FOUND MONUMENT AS NOTED. HELD UNLESS OTHERWISE NOTED
 - TEMPORARY CONTROL POINT
 - SEE MONUMENT DESCRIPTIONS
- NOTES:**
- ALL PIPE DIAMETERS ARE INSIDE DIMENSION, UNLESS NOTED OTHERWISE.
 - THE TERM "IRON ROD" REFERS TO REINFORCING BAR, SMOOTH RODS (IF ANY) ARE NOTED AS SUCH.
 - ALL FOUND MONUMENTS WERE VISITED AND TIED DURING THIS SURVEY (NOV 25, 2019).

SYMBOL LEGEND

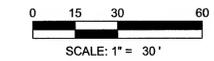
SYMBOL	DESCRIPTION
[Symbol]	FENCE GATE POST - EXISTING
[Symbol]	MAIL BOX
[Symbol]	CONIFER TREE*
[Symbol]	DECIDUOUS TREE*
[Symbol]	DECIDUOUS TREE CLUMP*
[Symbol]	WATER WELL
[Symbol]	MONITOR WELL
[Symbol]	CABLE TV PEDESTAL
[Symbol]	GUY ANCHOR
[Symbol]	ELECTRICAL POWER METER
[Symbol]	UTILITY POLE
[Symbol]	TELEPHONE PEDESTAL
[Symbol]	BORE HOLE
[Symbol]	WETLAND FLAG (UNLESS OTHERWISE NOTED AS OHWL) DELINEATED BY OTHERS

LINETYPE LEGEND

LINETYPE	DESCRIPTION
[Line Style]	DRAINAGE CULVERT
[Line Style]	DRAINAGE / ROAD DITCH
[Line Style]	4FT BARB WIRE FENCE
[Line Style]	EDGE OF WATER
[Line Style]	EDGE OF WETLAND
[Line Style]	ORDINARY HIGH WATER LINE
[Line Style]	EDGE OF CONCRETE
[Line Style]	EDGE OF PAVEMENT
[Line Style]	OVERHEAD WIRE
[Line Style]	UT - TELEPHONE LINE
[Line Style]	UTV - TELEVISION LINE
[Line Style]	ELP - ELECTRIC LINE UNDERGRND
[Line Style]	OP - ELECTRIC LINE OVERHEAD
[Line Style]	GUARD RAIL
[Line Style]	BUILDING LINE
[Line Style]	FLOWLINE
[Line Style]	MAJOR CONTOUR - SPACED AT 5' INTERVALS
[Line Style]	MINOR CONTOUR - SPACED AT 1' INTERVALS

HATCH LEGEND

HATCH	DESCRIPTION
[Hatch]	EXISTING ASPHALT SURFACE
[Hatch]	EXISTING CONCRETE SURFACE
[Hatch]	EXISTING ROCK/BOULDER OUTCROP



UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM UTILITY PAINT MARKINGS PROVIDED BY OTHERS, THAT WERE AVAILABLE DURING THE FIELD SURVEY. AS-BUILT MAPS WERE REQUESTED FROM THE NOTIFIED UTILITIES - NONE WERE RECEIVED.

THIS SURVEY MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA. THE UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THIS SURVEY, AND ARE LOCATED FROM THE INFORMATION PROVIDED. MANHOLES OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE LIDS AND MAY NOT BE LABELED CORRECTLY.

UTILITY LOCATIONS MUST BE VERIFIED BY THE STATE UTILITY NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.

UTILITY LOCATES WERE REQUESTED AUG 13, 2019 UNDER TICKET NUMBER 19354360 FOLLOWING IS A LIST OF UTILITY PROVIDERS NOTIFIED:

CMCST04	COMCAST CABLE COMM. MNGMT, LLC	(800)778-9140
COWPUD03	COWLITZ COUNTY PUD	(360)501-9546

* - DENOTES ASBUILT MAPS RECEIVED

UPDATED UTILITY LOCATES WERE REQUESTED JAN 4, 2021 UNDER TICKET NUMBER 21002447 FOLLOWING IS A LIST OF UTILITY PROVIDERS NOTIFIED:

CMCST04	COMCAST CABLE COMM. MNGMT, LLC	(800)778-9140
COWPUD03	COWLITZ COUNTY PUD	(360)501-9546

* - DENOTES ASBUILT MAPS RECEIVED

ABBREVIATIONS:

AFN	= AUDITOR'S FILE NUMBER
CCPWFB	= COWLITZ COUNTY PUBLIC WORKS FIELD BOOK
FD	= FOUND
IP	= IRON PIPE
IR	= IRON ROD
RPC	= RED PLASTIC CAP
YPC	= YELLOW PLASTIC CAP

<p>RM PROJECT MANAGER: 11/27/2019 DATE</p> <p>CB_PG DRAWN BY: 10/09/2023 DATE</p> <p>CB_PG_BH CHECKED BY: 10/09/2023 DATE</p>	<p>HORIZ. SCALE: 1" = 30'</p> <p>VERT. SCALE: 1" = 10 FEET</p> <p>PROJECT ID: 1779</p> <p>ROAD NO.: 23200</p> <p>COMPUTER FILE: 1779 GarlockRd-TOPO.dwg</p> <p>FIELD BOOK(S): 2019-01 & 2019-02</p>	<p>DEPARTMENT OF PUBLIC WORKS</p> <p>1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626</p>	<p>LOCATED IN THE SE ONE-QUARTER OF SECTION 18, AND THE SW ONE-QUARTER OF SECTION 17, TOWNSHIP 9 NORTH, RANGE 2 WEST, WILLAMETTE MERIDIAN COWLITZ COUNTY, WASHINGTON</p> <p>FIELD WORK DATES: 8/20/2019-11/25/2019 (ORIGINAL TOPO) / 10/19/2020, 1/05/2021 - 1/21/2021, & 10/4/2023 (MORE ADDITIONAL TOPO)</p>	<p>GARLOCK ROAD CULVERT REPLACEMENT TOPOGRAPHIC SURVEY DELAMETER CREEK</p>	<p>SHEET 1 OF 2</p>
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SITE PHOTOS:

PHOTOS WERE TAKEN ON 01/14/2021, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY



TAKEN ON THE NORTH SIDE OF THE ROAD, LOOKING SOUTHEAST AT THE INLET OF THE 12" CULVERT



TAKEN ON SOUTH SIDE OF THE ROAD IN THE DRAW, LOOKING NORTH AT THE OUTLET OF THE 12" CULVERT



TAKEN NEAR THE CREEK, LOOKING NORTHEAST AT A NARROW STRIP OF GROUND BETWEEN THE CREEK AND THE STEEP SLOPE

JERRY A. SESSIONS
PARCEL #WJ1804001
AFN 930128106
AFN 3708746

SITE PHOTOS:

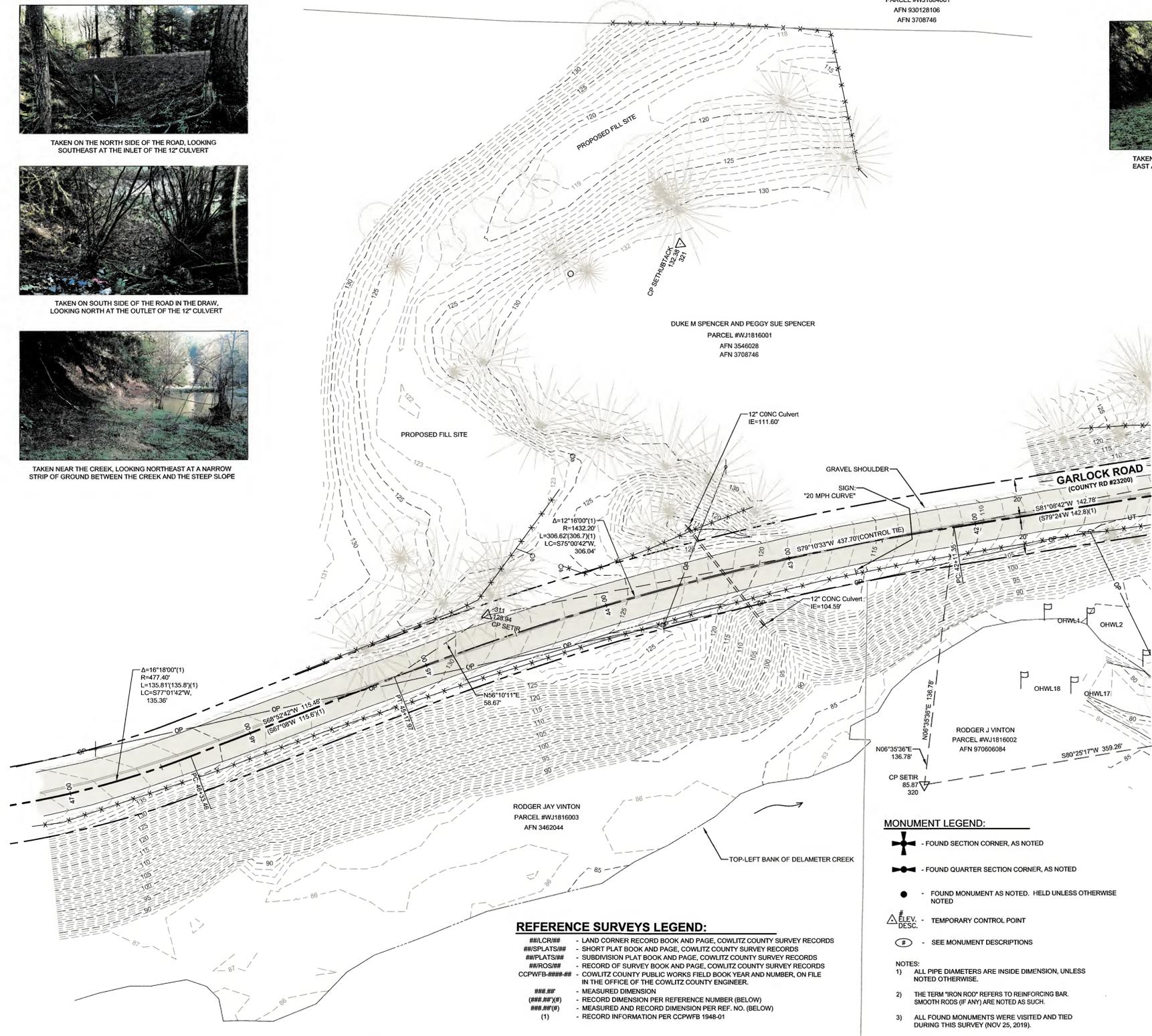
PHOTOS WERE TAKEN ON 01/14/2021, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY



TAKEN AT THE LOWER, WEST END OF PROJECT, LOOKING EAST AT THE FIELD BETWEEN THE CREEK AND THE ROAD



TAKEN ON THE NORTH SIDE OF GARLOCK RD, NEAR THE SOUTHEAST CORNER OF THE PROPOSED FILL SITE, LOOKING WESTERLY AT THE ROAD DITCH AND SOUTH END OF THE PROPOSED FILL SITE



SYMBOL LEGEND	
[Symbol]	DESCRIPTION
[Symbol]	FENCE GATE POST - EXISTING
[Symbol]	MAIL BOX
[Symbol]	CONIFER TREE*
[Symbol]	DECIDUOUS TREE*
[Symbol]	DECIDUOUS TREE CLUMP*
[Symbol]	WATER WELL
[Symbol]	SIGN
[Symbol]	MONITOR WELL
[Symbol]	CABLE TV PEDESTAL
[Symbol]	GUY ANCHOR
[Symbol]	ELECTRICAL POWER METER
[Symbol]	UTILITY POLE
[Symbol]	TELEPHONE PEDESTAL
[Symbol]	BORE HOLE
[Symbol]	WETLAND FLAG (UNLESS OTHERWISE NOTED AS OHWL) DELINEATED BY OTHERS

LINETYPE LEGEND	
[Linetype]	DESCRIPTION
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[Linetype]	DRAINAGE / ROAD DITCH
[Linetype]	4 FT BARB WIRE FENCE
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[Linetype]	EDGE OF WETLAND
[Linetype]	ORDINARY HIGH WATER LINE
[Linetype]	EDGE OF CONCRETE
[Linetype]	EDGE OF PAVEMENT
[Linetype]	OVERHEAD WIRE
[Linetype]	TELEPHONE LINE
[Linetype]	TELEVISION LINE
[Linetype]	ELECTRIC LINE UNDERGRND
[Linetype]	ELECTRIC LINE OVERHEAD
[Linetype]	GUARD RAIL
[Linetype]	BUILDING LINE
[Linetype]	FLOWLINE
[Linetype]	MAJOR CONTOUR - SPACED AT 5' INTERVALS
[Linetype]	MINOR CONTOUR - SPACED AT 1' INTERVALS

HATCH LEGEND	
[Hatch]	DESCRIPTION
[Hatch]	EXISTING ASPHALT SURFACE
[Hatch]	EXISTING CONCRETE SURFACE
[Hatch]	EXISTING ROCK/BOULDER OUTCROP

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UTILITY LOCATIONS MUST BE VERIFIED BY THE STATE UTILITY NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.

UTILITY LOCATES WERE REQUESTED AUG 13, 2019 UNDER TICKET NUMBER 19354360 FOLLOWING IS A LIST OF UTILITY PROVIDERS NOTIFIED:

- | | | |
|--|--------------------------------|---------------|
| CMCST04 | COMCAST CABLE COMM. MNGMT, LLC | (800)778-9140 |
| COPLUD03 | COWLITZ COUNTY PUD | (360)501-9546 |
| * - DENOTES ASBUILT MAPS RECEIVED | | |
| UPDATED UTILITY LOCATES WERE REQUESTED JAN 4, 2021 UNDER TICKET NUMBER 21002447 FOLLOWING IS A LIST OF UTILITY PROVIDERS NOTIFIED: | | |
| CMCST04 | COMCAST CABLE COMM. MNGMT, LLC | (800)778-9140 |
| COPLUD03 | COWLITZ COUNTY PUD | (360)501-9546 |
| * - DENOTES ASBUILT MAPS RECEIVED | | |

MONUMENT LEGEND:

[Symbol]	- FOUND SECTION CORNER, AS NOTED
[Symbol]	- FOUND QUARTER SECTION CORNER, AS NOTED
[Symbol]	- FOUND MONUMENT AS NOTED. HELD UNLESS OTHERWISE NOTED
[Symbol]	- TEMPORARY CONTROL POINT
[Symbol]	- SEE MONUMENT DESCRIPTIONS

REFERENCE SURVEYS LEGEND:

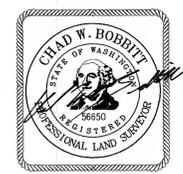
###LCR###	- LAND CORNER RECORD BOOK AND PAGE, COWLITZ COUNTY SURVEY RECORDS
###SPLATS###	- SHORT PLAT BOOK AND PAGE, COWLITZ COUNTY SURVEY RECORDS
###PLATS###	- SUBDIVISION PLAT BOOK AND PAGE, COWLITZ COUNTY SURVEY RECORDS
###ROS###	- RECORD OF SURVEY BOOK AND PAGE, COWLITZ COUNTY SURVEY RECORDS
CCPWFB####	- COWLITZ COUNTY PUBLIC WORKS FIELD BOOK YEAR AND NUMBER, ON FILE IN THE OFFICE OF THE COWLITZ COUNTY ENGINEER.
###	- MEASURED DIMENSION
(###)###(###)	- RECORD DIMENSION PER REFERENCE NUMBER (BELOW)
###(###)	- MEASURED AND RECORD DIMENSION PER REF. NO. (BELOW)
(1)	- RECORD INFORMATION PER CCPWFB 1948-01

- NOTES:
- 1) ALL PIPE DIAMETERS ARE INSIDE DIMENSION, UNLESS NOTED OTHERWISE.
 - 2) THE TERM "IRON ROD" REFERS TO REINFORCING BAR. SMOOTH RODS (IF ANY) ARE NOTED AS SUCH.
 - 3) ALL FOUND MONUMENTS WERE VISITED AND TIED DURING THIS SURVEY (NOV 25, 2019).

* NOTE THAT APPROXIMATE TREE DIAMETERS (6" AND LARGER) WERE COLLECTED, BUT NOT SHOWN HEREON DUE TO CLARITY ISSUES. PLEASE REQUEST THIS INFORMATION IF NECESSARY.
** NOTE: A CLUMP WAS CONSIDERED TO BE WHERE 2 OR MORE TRUNKS SPLIT AT APPROXIMATELY CHEST HEIGHT AND SHARE A SINGLE ROOT BALL. THE QUANTITY AND SIZES OF THE TRUNKS ARE NOT SHOWN HEREON. PLEASE REQUEST THIS INFORMATION IF NECESSARY.

ABBREVIATIONS:

AFN	= AUDITORS FILE NUMBER
CCPWFB	= COWLITZ COUNTY PUBLIC WORKS FIELD BOOK
FD	= FOUND
IP	= IRON PIPE
IR	= IRON ROD
RPC	= RED PLASTIC CAP
YPC	= YELLOW PLASTIC CAP



RM	11/27/2019
PROJECT MANAGER	DATE
CB_PG	10/09/2023
DRAWN BY	DATE
CB_PG_BH	10/09/2023
CHECKED BY	DATE

HORIZ. SCALE: 1" = 30'
VERT. SCALE: 1" CONTOURS
PROJECT ID: 1779
ROAD NO. : 23200
COMPUTER FILE: 1779 GarlockRd-TOPO.dwg
FIELD BOOK(S): 2019-01 & 2019-02

COWLITZ COUNTY WASHINGTON

DEPARTMENT OF PUBLIC WORKS

1600 13TH AVENUE SOUTH
KELSO, WASHINGTON 98626

LOCATED IN THE SE ONE-QUARTER OF SECTION 18, AND THE SW ONE-QUARTER OF SECTION 17, TOWNSHIP 9 NORTH, RANGE 2 WEST, WILLAMETTE MERIDIAN
COWLITZ COUNTY, WASHINGTON
FIELD WORK DATES: 8/20/2019-11/25/2019 (ORIGINAL TOPO) / 10/19/2020, 1/05/2021 - 1/21/2021, & 10/4/2023 (ADDITIONAL TOPO)

GARLOCK ROAD CULVERT REPLACEMENT TOPOGRAPHIC SURVEY DELAMETER CREEK

SHEET 2 OF 2

APPENDIX B

HPA from Washington State Department of Fish and Wildlife



HYDRAULIC PROJECT APPROVAL

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

Issued Date: April 25, 2024
Project End Date: April 24, 2029

Permit Number: 2024-5-44+01
FPA/Public Notice Number: N/A
Application ID: 34130

PERMITTEE

Cowlitz County
ATTENTION: Susan Eugenis
1600 13th Ave S
Kelso, WA 98626

AUTHORIZED AGENT OR CONTRACTOR

Cowlitz County Public Works
ATTENTION: Roger Maurer
1600 S 13th Ave
Kelso, WA 98626-2851

Project Name: Garlock Road Delameter Creek Fish Passage Project

Project Description: The project will replace a concrete box culvert that is a blockage to fish passage with a 55-foot span steel arch culvert supported on steel piles and concrete pile caps.

PROVISIONS

TIMING - PLANS - INVASIVE SPECIES CONTROL

1. **TIMING LIMITATION:** Work below the ordinary high water line can occur between July 16 and September 30.
2. **RE-VEGETATION:** You must complete re-vegetation during the first dormant season (late fall through late winter) after project completion per the approved plan. Monitor the success of the re-vegetation to ensure no less than 80% survival for at least three years.
3. **APPROVED PLANS:** You must accomplish the work per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, including:
 - "Garlock Road Delameter Creek Fish Passage Project," received March 14, 2024, and
 - "Garlock Permit Drawings 4-23-24.pdf," received April 23, 2024, which shows an updated planting plan and placement of boulders within the culvert, and
 - Email received April 17, 2024, clarifying that boulder anchors will not be required to keep LWM in place,

except as modified by this Hydraulic Project Approval. You must have a copy of these plans and this HPA available on site during all phases of the project construction.

4. **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>.

NOTIFICATION REQUIREMENTS

5. **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.
6. **FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION:** If a fish kill occurs or fish are observed in distress at the



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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. Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.
9. Station equipment used for this project landward of the ordinary high water line.
10. This Hydraulic Project Approval authorizes only the removal of the large woody vegetation shown in the approved plan. Clearly mark all large woody vegetation authorized for removal before starting work.
11. Equipment used for this project may operate waterward of the ordinary high water line, provided the drive mechanisms (wheels, tracks, tires, etc.) do not enter or operate waterward of the ordinary high water line of a flowing section of stream. Equipment may enter and operate waterward of the ordinary high water line while the work area is isolated and dewatered and fish have been removed.
12. 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.
13. If wet or muddy conditions exist, in or near a riparian zone or wetland area, use equipment that reduces ground pressure.
14. Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.
15. 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

16. Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).
17. Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.
18. All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.
19. Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.
20. 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.
21. 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.
22. 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.
23. 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.



FWA - WDFW

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24. Deposit all trash from the project at an appropriate upland disposal location.

CONSTRUCTION MATERIALS

25. 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.

26. Do not stockpile construction material waterward of the ordinary high water line.

27. Use only clean, suitable material as fill material (no trash, debris, car bodies, tires, asphalt, concrete, etc.).

28. To prevent leaching, construct forms to contain any wet concrete. Place impervious material over wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured.

29. Do not use wood treated with oil-type preservatives (creosote, pentachlorophenol) in any hydraulic project. You may use wood treated with waterborne preservatives (ACZA, ACQ) provided the wood is approved by the Western Wood Preservers Institute for use in the aquatic environment. Any use of treated wood in the aquatic environment must follow guidelines and best management practices available at www.wwpinstitute.org.

IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE

30. Use a cofferdam, dike, or similar structure to exclude water from the work area.

31. Maintain water quality when installing and removing the cofferdam, dike or similar structure.

32. Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.

33. Route the 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.

34. Sequence the work to minimize the duration of dewatering.

FISH LIFE REMOVAL - GENERAL

35. All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.

36. If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.

37. Capture and safely move fish life from the work area to the nearest suitable free-flowing water.

FISH LIFE REMOVAL - LAMPREY

38. Prior to commencement of work, survey to determine lamprey ammocoete presence using standard methods.

39. If lamprey are present within the work area, salvage lamprey using standard methods.

40. FISH LIFE REMOVAL - FRESHWATER MUSSELS

41. Prior to other work below the ordinary high water line, conduct a survey for freshwater mussels within and in the immediate vicinity of the work area. If freshwater mussels are found, consult with the WDFW Habitat Biologist to form a salvage plan.

Survey using methods described in:

Blevins, E., L. McMullen, S. Jepsen, M. Blackburn, A. Code, and S.H. Black. 2017. Conserving the Gems of Our Waters: Best Management Practices for Protecting Native Western Freshwater Mussels During Aquatic and Riparian Restoration, Construction, and Land Management Projects and Activities. 108pp. Portland, OR: The Xerces Society



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for Invertebrate Conservation. (Available online at www.xerces.org).

CULVERT

42. The authorized culvert is a bottomless arch culvert based on no-slope design guidance.
43. Install and maintain the culvert to ensure unimpeded fish passage.
44. Establish the culvert invert elevation with reference points or benchmarks created prior to starting work on this project. Clearly mark and preserve the reference points 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).
45. As shown on the approved plans, the length of the culvert must not exceed 54 feet.
46. The width of the channel-bed inside the culvert at the elevation of the stream bed must be equal to or greater than 41 feet. The width between the culvert footings must be equal to or greater than 55 feet.
47. Size streambed material to mimic the stream's natural gradation as found in nearby reference channel reaches. Place a minimum of 24 inches deep of clean, rounded and well-graded material. For the majority of the streambed, use a well-graded mix with maximum size of 2.5 inches. Larger (12 - 18 inches) boulders are authorized for limited use along channel sides at the right bank culvert inlet and the left bank culvert outlet, as shown on the approved plans.
48. 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.
49. Protect structural fill associated with the culvert installation from erosion to the 100-year peak flow.
50. Approach material must be structurally stable and composed of material that if eroded into the water will not harm fish life.
51. 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.
52. Embed the top of footings of bottomless culverts sufficiently below potential scour depth to prevent exposure of the footing surface and undermining.

LARGE WOODY MATERIAL

53. Place large wood or other materials consistent with natural stream processes waterward of the ordinary high water line as shown in the approved plans.
54. Place the fish habitat structures such that some will engage the low flow channel.

DEMOBILIZATION AND CLEANUP

55. 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.
56. 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.
57. To prevent fish from stranding, backfill trenches, depressions, and holes in the bed that may entrain fish during high water or wave action.
58. 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.
59. Stabilize the bed with clean material sized to match undisturbed sediments.
60. Seed areas disturbed by construction activities with a native seed mix suitable for the site that has at least one quick-establishing plant species.
61. Replace native riparian zone and aquatic vegetation, and wetland vascular plants (except noxious weeds) damaged



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Application ID: 34130

or destroyed by construction using a proven methodology.

62. Complete planting of riparian vegetation during the first dormant season (late fall through late winter) after project completion per the approved planting plan. Maintain plantings for at least three years to ensure at least eighty percent of the plantings survive. Failure to achieve the eighty percent survival in year three will require you to submit a plan with follow-up measures to achieve requirements or reasons to modify requirements.

63. 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.

64. Return water flow slowly to the in-water work area to prevent the downstream release of sediment laden water. If necessary, install silt fencing above the bypass outlet to capture sediment during re-watering of the channel.

65. 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: Garlock Road Delameter Creek Culvert
Garlock Road, Castle Rock, WA 98611

WORK START: April 25, 2024

WORK END: April 24, 2029

<u>WRIA</u>	<u>Waterbody:</u>	<u>Tributary to:</u>				
26 - Cowlitz	Delameter Creek (rb)	Arkansas Creek				
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SW 1/4	17	09 N	02 W	46.259692	-122.969169	Cowlitz

Location #1 Driving Directions

From I-5 exit 49, head southwest 0.71 miles to "A" Street. Turn right and head west 0.72 miles to West Side Hwy. Turn left and head south 0.68 miles to Delameter Road. Turn right and head west and south 3.04 miles to Garlock Road. Turn left and head east 0.39 miles to the project site.

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.



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Failure to comply with the provisions of this Hydraulic Project Approval could result in 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.

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



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Application ID: 34130

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, 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.



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Habitat Biologist George.Fornes@dfw.wa.gov
George Fornes 360-906-6731

for Director
WDFW

APPENDIX C

Nationwide Permit 14 from US Army Corps of Engineers



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 6, 2024

Cowlitz County Department of Public Works
Attn: Susan Eugenis
1600 13th Ave South
Kelso, Washington 98626

Reference: NWS-2024-245
Delameter Creek Fish
Passage

Dear Susan Eugenis:

We have reviewed your application to excavate 272 cubic yards of material over 7,363 square feet and discharge up to 258 cubic yards of fill over 6,973 square feet of Delameter Creek, to replace an existing culvert with a 55-foot span steel structural plate arch culvert at milepost 0.67 to milepost 0.77 Garlock Road, Castle Rock, Cowlitz County, Washington. Based on the information you provided to us, Nationwide Permit (NWP) 14, *Linear Transportation Projects* (Federal Register January 13, 2021, Vol. 86, No. 8), authorizes your proposal as depicted on the enclosed drawings submitted to the corps on April 4, 2024.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 14, Terms and Conditions*, and the following special condition:

- a. In order to meet the requirements of the Endangered Species Act (ESA) and Magnuson-Stevens Fishery Conservation and Management Act (MSA) programmatic consultation Fish Passage and Restoration Actions in Washington State (FPRP III) (National Marine Fisheries Service (NMFS) Reference Number WCRO-2014-00004), you must implement and abide by the ESA requirements and/or agreements set forth in the Biological Opinion (BO) dated June 21, 2017, and the Project Information Form dated 12 March, 2024 in the enclosed document Appendix A: FPRP III Guidelines and Implementation Forms (NMFS Reference Number WCRO-2017-0004-7097). The BO is available on the U.S. Army Corps of Engineers (Corps) website (Permit Guidebook, Endangered Species, Programmatic Consultations, Fish Passage and Restoration Programmatic Consultations). Within 45 days of completing the permitted work in waters of the U.S., you must provide the Corps the information requested in the

FPRP Action Completion Reporting Form in the enclosed document Appendix A: FPRP III Guidelines and Implementation Forms. If fish salvage occurs as part of your project, you must also provide the Corps the information requested in the FPRP Fish Salvage Reporting Form in the enclosed document Appendix A: FPRP III Guidelines and Implementation Forms, within 45 days of completing the permitted work in waters of the U.S. All information must prominently display the reference number NWS-2024-245. Failure to comply with these requirements constitutes non-compliance with the ESA and your Corps permit. The NMFS is the appropriate authority to determine compliance with the terms and conditions of their BO and with the ESA. If you cannot comply with the terms and conditions of this programmatic consultation, you must, prior to commencing construction, contact the Corps, Seattle District, Regulatory Branch for an individual consultation in accordance with the requirements of the ESA and/or the MSA.

We have reviewed your project pursuant to the requirements of the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act and the National Historic Preservation Act. We have determined this project complies with the requirements of these laws provided you comply with all of the permit general and special conditions.

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 for this NWP. No further coordination with Ecology for WQC 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 Roger Maurer. If you have any questions, please contact me at owen.weller@usace.army.mil or (360) 305-5891.

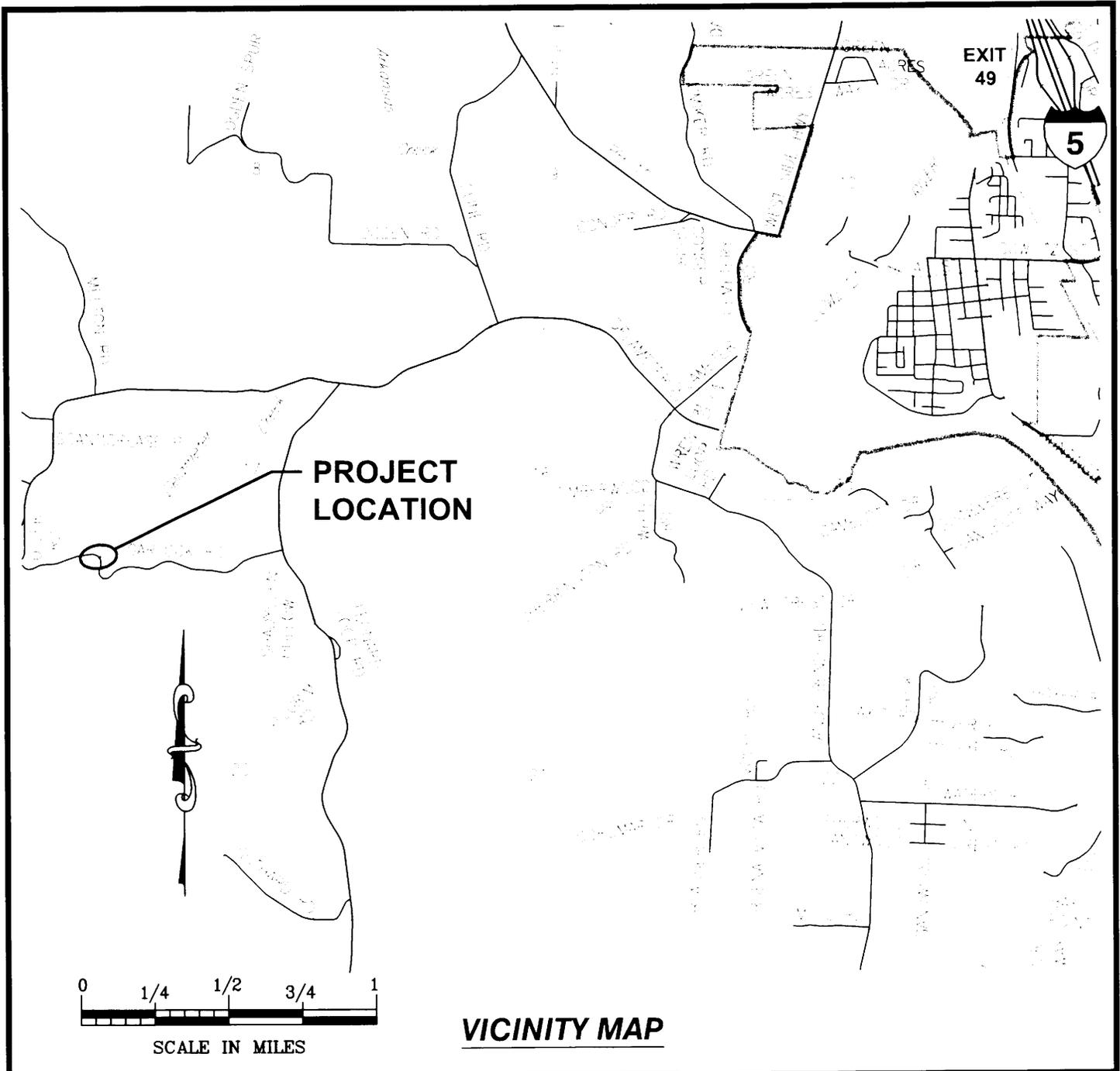
Sincerely,



M. Owen Weller, Project Manager
Regulatory Branch

Enclosures

cc:
Ecology (ecyrefedpermits@ecy.wa.gov)



VICINITY MAP

Reference Number: **NWS-2023-XXX**
 Proposed Project: **Garlock Road Fish Passage Project**
 Applicant: **Cowlitz County Department of Public Works**
 Adjacent Property Owners:
 1. **Rodger J. Vinton**
 2. **Leroy M. and Billie Jo Schaafsma**
 3. **Duke M. and Peggy Sue Spencer**

Project Location: **Garlock Rd & Delameter Creek**
 Project Lat/Long: **N46°15'34.80 W122°58'08.98"**
 STR: **Sec 17 & 18, T9 N, R 2 W**
 In: **Garlock Creek**
 Near: **Castle Rock**
 County: **Cowlitz**
 State: **WA**
 Datum: **NAVD 1988**

R.E.M.
 DESIGNED BY
 D.J.B.
 DRAWN BY
 S.E.E.
 APPROVED BY
 4/23/2024
 DATE

NWS-2024-XXX
Cowlitz County Public Works
 Garlock Road
 Fish Passage Project



DEPARTMENT
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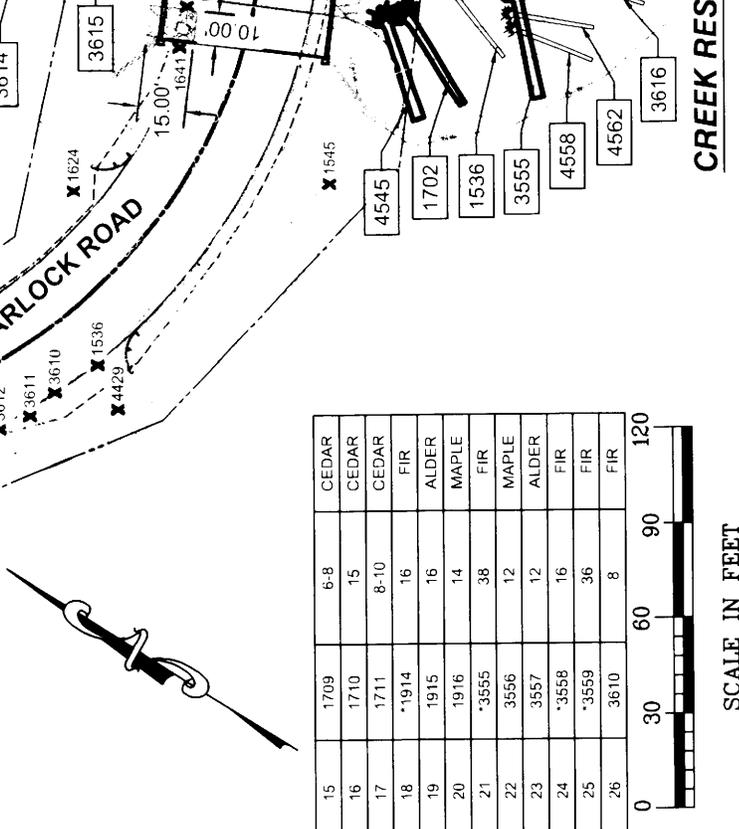
LEGEND
 LARGE WOODY MATERIAL
 TREE TO BE REMOVED
 LARGE WOODY MATERIAL LABEL

* TREES TO BE RETAINED FOR CREEK HABITAT IMPROVEMENT (LARGE WOODY MATERIAL)
 ** STUMP

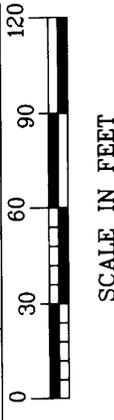
COUNT	TREE ID #	SIZE (BHD) (in)	SPECIES	COUNT	TREE ID #	SIZE (BHD) (in)	SPECIES
1	1507	25	ALDER	27	*3611	13	FIR
2	*1508	12-25	FIR	28	*3612	13	FIR
3	*1536	12	FIR	29	*3613	12	FIR
4	1545	50	MAPLE	30	*3614	13	FIR
5	1624	30	MAPLE	31	*3615	12	FIR
6	*1640	14	FIR	32	*3616	14	FIR
7	*1641	14	FIR	33	3617	10	FIR
8	1701	12	MAPLE	34	4429	8	FIR
9	*1702	21	FIR	35	4487	16	FIR
10	1703	7	FIR	36	*4545	40	FIR
11	1704	33	MAPLE	37	4553	18	ALDER
12	1705	5	FIR	38	*4558	14	FIR
13	1706	7	CEDAR	39	4559	12-18-19-19	MAPLE
14	*1707	11	FIR	40	4560	17	MAPLE
				41	4561	14-22-24-25	**MAPLE
				42	*4562	12	FIR

LEROY M. AND
 BILLIE JO SCHAAFSMA
 AFN 163560
 PARCEL WJ1712002

RODGER J. VINTON
 AFN 973623
 PARCEL WJ1816002



15	1709	6-8	CEDAR
16	1710	15	CEDAR
17	1711	8-10	CEDAR
18	*1914	16	FIR
19	1915	16	ALDER
20	1916	14	MAPLE
21	*3555	38	FIR
22	3556	12	MAPLE
23	3557	12	ALDER
24	*3558	16	FIR
25	*3559	36	FIR
26	3610	8	FIR



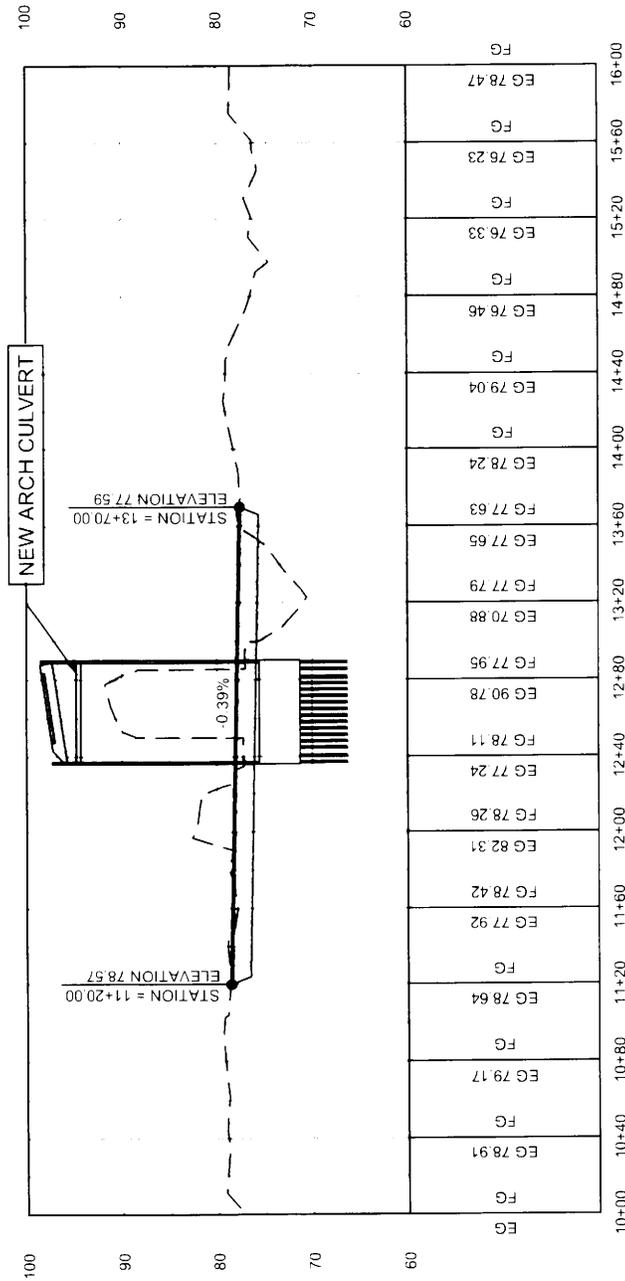
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 S.E.E.
 APPROVED BY
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 DATE

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 Garlock Road
 Fish Passage Project

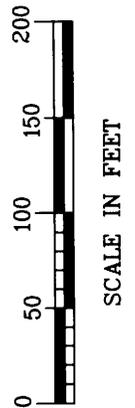


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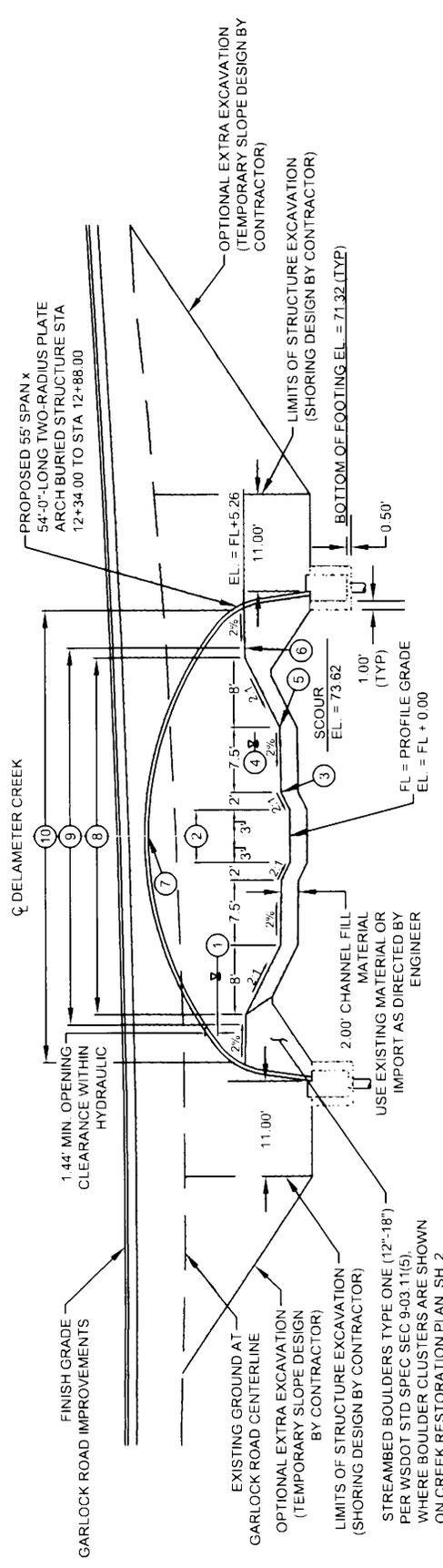
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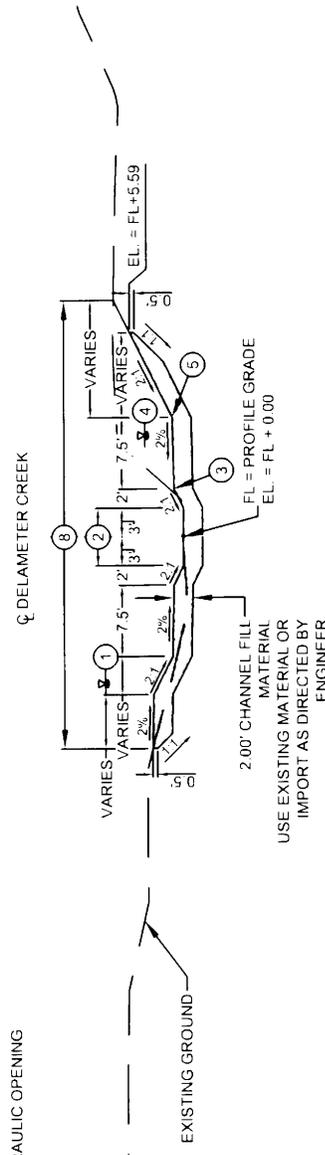


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	Garlock Road Fish Passage Project		1600 13th AVENUE SOUTH KELSO, WASHINGTON 98626	



TYPICAL DELAMETER CREEK SECTION WITHIN PROPOSED CULVERT
 STA 12+22.87 TO STA 12+88.00

- ① 100-YEAR WATER SURFACE EL. = 86.38
- ② 6' LOW FLOW CHANNEL
- ③ EL = FL + 1.00
- ④ OHW EL = FL + 4.00
- ⑤ EL = FL + 1.15
- ⑥ EL = FL + 5.15
- ⑦ CROWN EL. = 94.31
- ⑧ 41' MIN. BANK-TO-BANK
- ⑨ 43.30' HYDRAULIC OPENING
- ⑩ 52'



TYPICAL DELAMETER CREEK SECTION UPSTREAM OF PROPOSED CULVERT
 STA 11+20.00 TO STA 12+22.87

- LEGEND**
- CHANNEL FILL MATERIAL
 - STRUCTURAL FILL (3" MINUS CRUSHED GRAVEL)

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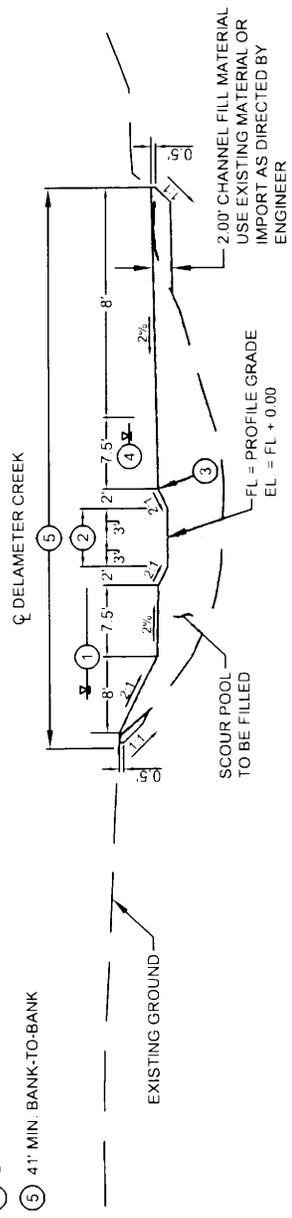
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SHEET
 4
 OF
 12

- ① 100-YEAR WATER SURFACE EL. = 86.38
- ② 6' LOW FLOW CHANNEL
- ③ EL = FL+1.00
- ④ OHW EL = FL+4.00
- ⑤ 4' MIN. BANK-TO-BANK



**TYPICAL DELAMETER CREEK SECTION
DOWNSTREAM OF PROPOSED CULVERT**
STA 12+88.00 TO STA 13+70.00



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4/23/2024
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Fish Passage Project



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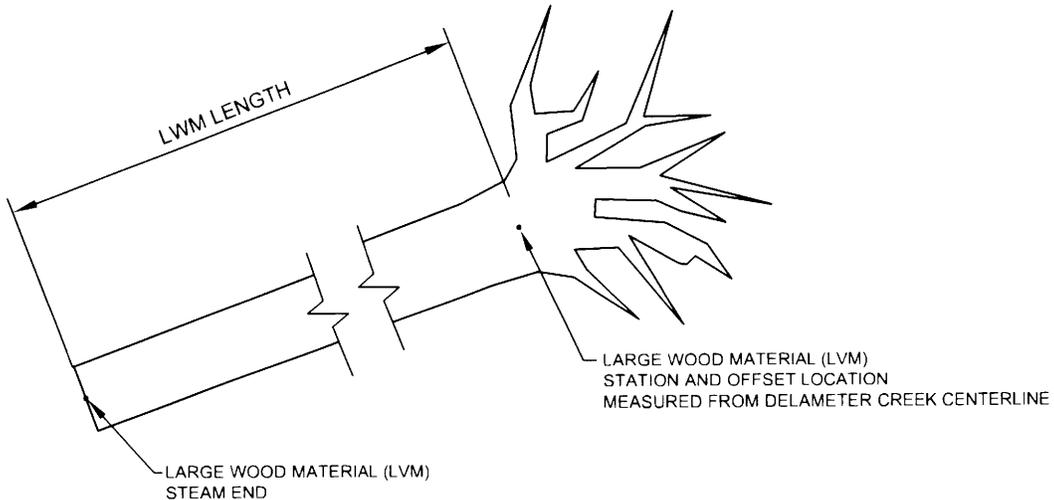
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12

LARGE WOODY MATERIAL (LWM) LOCATION TABLE

TREE ID #	LENGTH (FT)	STATION / OFFSET	ANGLE A (DEG)	ANGLE B (DEG)	DISTANCE C (FT)	ANCHOR TYPE	DISTANCE D (FT)
1508	30	11+45 / 4' RT	50	-8	-1.5		
1536	40	13+25 / 3' RT	45	-4.5	0.0		
1640	30	11+36 / 3' RT	41	-2	0.0		
1641	30	13+17 / 4' LT	54	-2	0.0		
1702	30	13+12 / 13' RT	52	-4	1.0		
1707	30	13+33 / 3' LT	54	-5	0.0		
1914	30	11+53 / 3' LT	35	-12	0.0		
3555	40	13+44 / 5' RT	87	-1	-2.0		
3558	30	11+69 / 3' LT	58	-5	0.0		
3559	40	13+08 / 6' LT	74	-12	0.5		
3611	30	11+82 / 10' LT	21	-2	1.5		
3612	30	11+87 / 9' LT	12	-11	1.5		
3613	30	11+62 / 11' RT	16	-7	1.5		
3614	30	11+67 / 7' RT	16	-8	1.0		
3615	30	11+85 / 3' RT	41	-2	0.0		
3616	30	13+59 / 3' RT	48	-3	0.0		
4545	35	13+06 / 6' LT	64	-10	1.0		
4558	30	13+43 / 14' RT	41	-2	1.75		
4562	30	13+42 / 9' RT	29	-6	1.0		

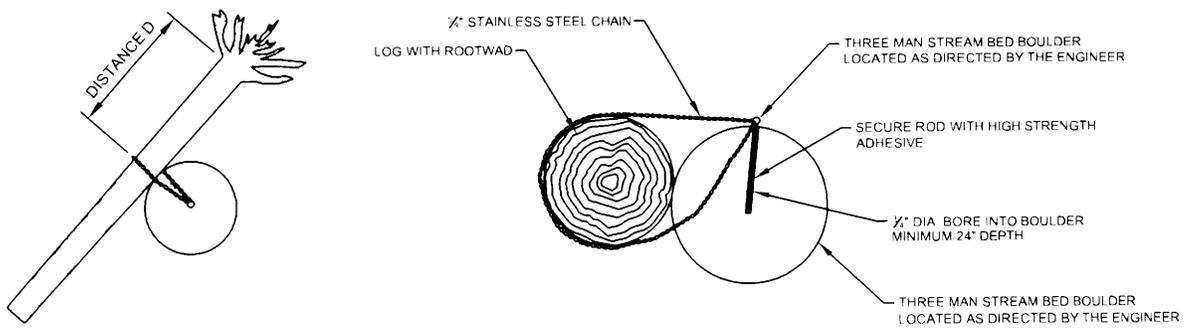
NOTES:

1. LARGE WOODY MATERIAL LENGTH IS MEASURED FROM THE COLLAR OF THE ROOT WAD TO THE STEM END. LENGTH SHOWN IS THE MINIMUM LENGTH REQUIRED.
2. THE STATION AND OFFSET INDICATE THE LOCATION OF THE ROOTWAD RELATIVE TO THE CREEK THALWEG CENTERLINE.
3. ANGLE "A" IS MEASURED FROM THE STREAM CENTERLINE TO THE LOG CENTERLINE AS SHOWN ON THE DETAIL FOR LEFT BANK (LB) OR RIGHT BANK (RB) LOG PLACEMENT.
4. ANGLE "B" IS MEASURED FROM HORIZONTAL AS SHOWN ON THE DETAIL. POSITIVE ANGLE "B" VALUE INDICATES THAT THE ELEVATION OF THE LOG END FURTHEST FROM THE MAIN CHANNEL IS HIGHER THAN THE LOG END NEAREST THE MAIN CHANNEL. NEGATIVE ANGLE "B" VALUE INDICATES THAT THE ELEVATION OF THE LOG END FURTHEST FROM THE MAIN CHANNEL IS LOWER THAN THE LOG END NEAREST THE MAIN CHANNEL.
5. DISTANCE "C" IS THE DEPTH BENEATH THE THALWEG MEASURED TO THE BOTTOM OF THE ROOTWAD. A POSITIVE "C" VALUE INDICATES AND ELEVATION ABOVE THE THALWEG. A NEGATIVE "C" VALUE INDICATES AN ELEVATION BELOW THE THALWEG.
6. DISTANCE "D" IS THE LOCATION FOR THE ANCHOR, IF REQUIRED, AS MEASURED FROM THE ROOTWAD COLLAR.

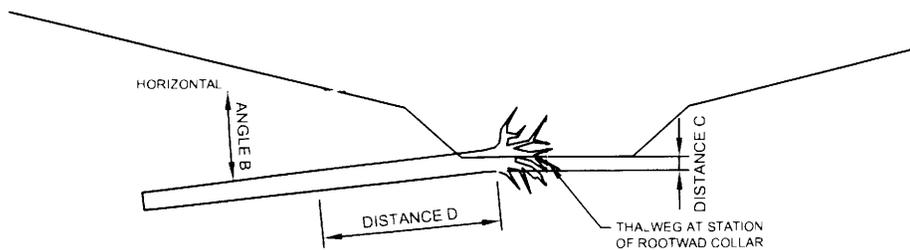
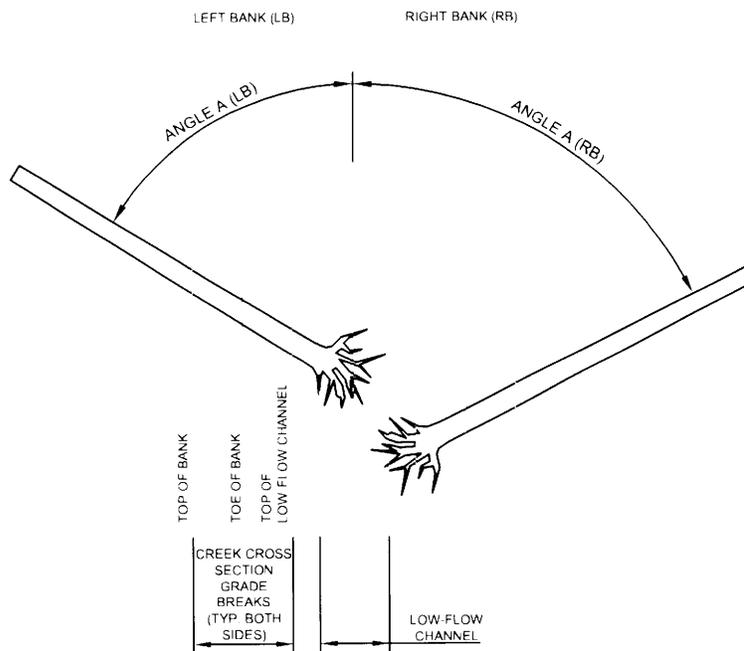


LWM STATION / OFFSET LOCATION DETAIL

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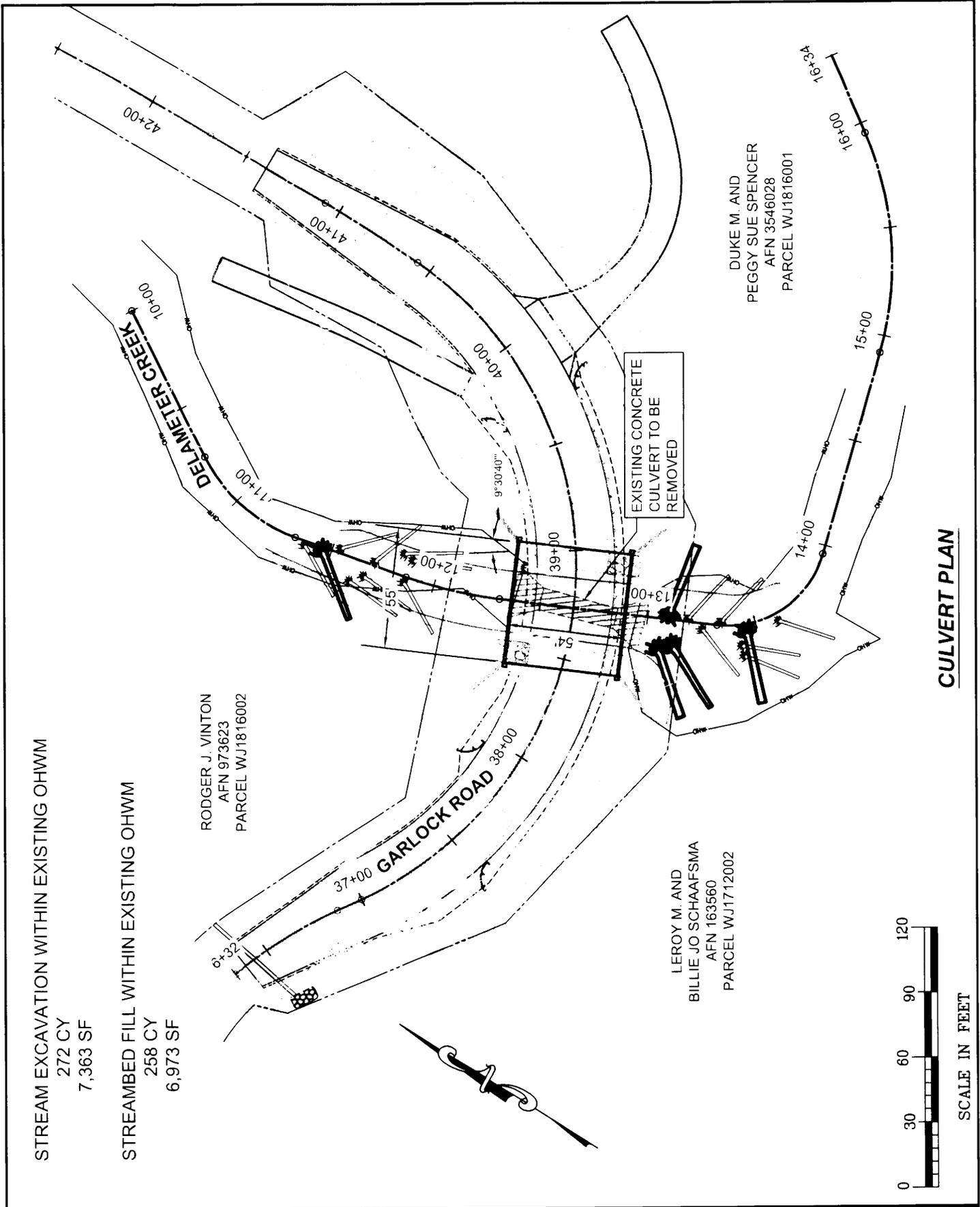


DEADMAN ANCHOR DETAIL



SECTION A-A

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	Garlock Road Fish Passage Project		



STREAM EXCAVATION WITHIN EXISTING OHWM

272 CY
7,363 SF

STREAMBED FILL WITHIN EXISTING OHWM

258 CY
6,973 SF

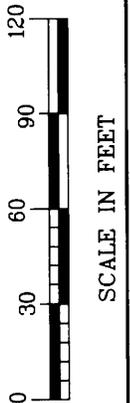
RODGER J. VINTON
AFN 973623
PARCEL WJ1816002

LEROY M. AND
BILLIE JO SCHAAAFSMA
AFN 163560
PARCEL WJ1712002

DUKE M. AND
PEGGY SUE SPENCER
AFN 3546028
PARCEL WJ1816001

EXISTING CONCRETE
CULVERT TO BE
REMOVED

CULVERT PLAN



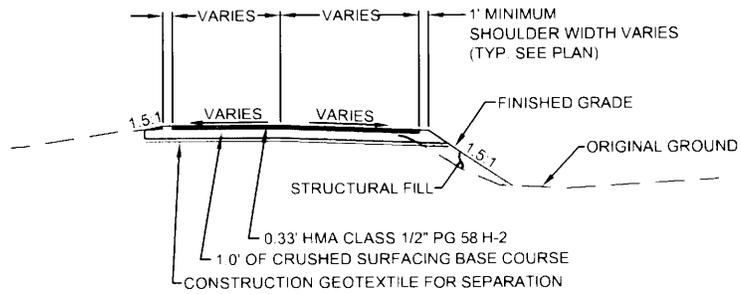
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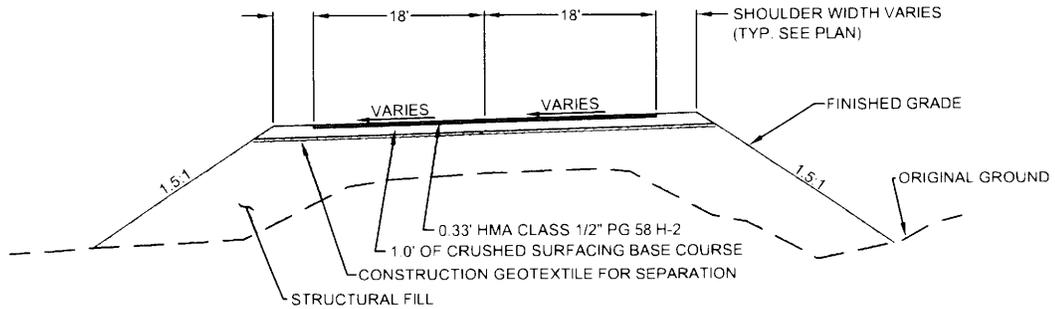


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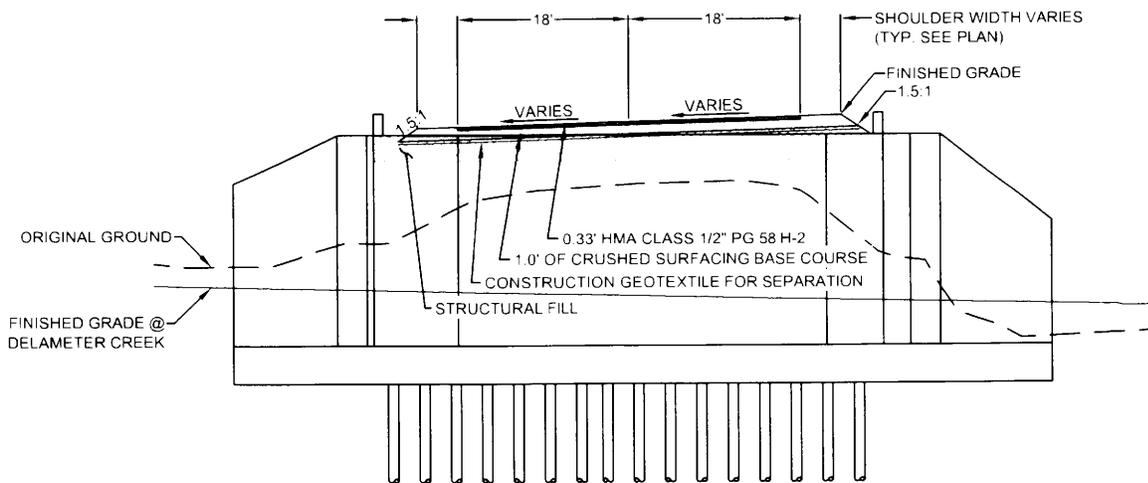
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TYPICAL GARLOCK ROAD SECTION
STA 36+50



TYPICAL GARLOCK ROAD SECTION
STA 38+25



TYPICAL GARLOCK ROAD SECTION
STA 38+50

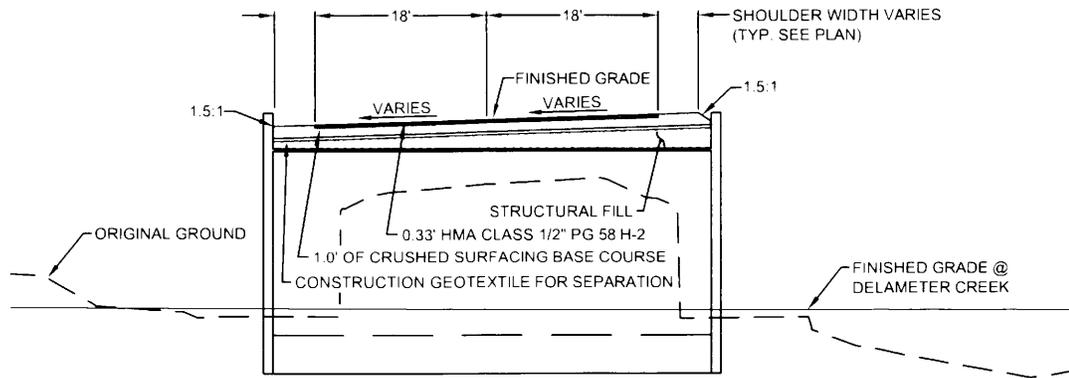
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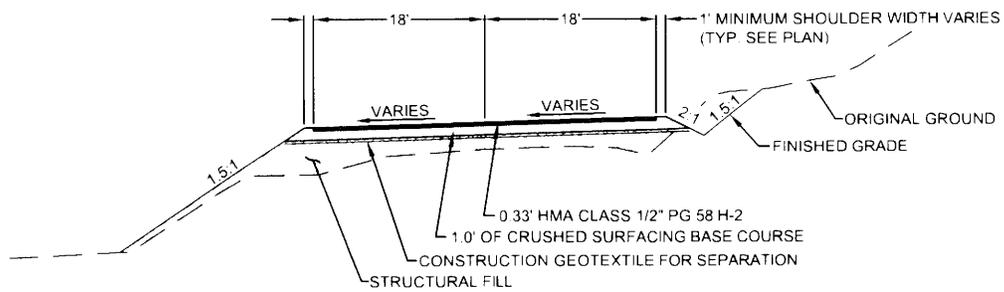


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TYPICAL GARLOCK ROAD SECTION
STA 38+75



TYPICAL GARLOCK ROAD SECTION
STA 40+25

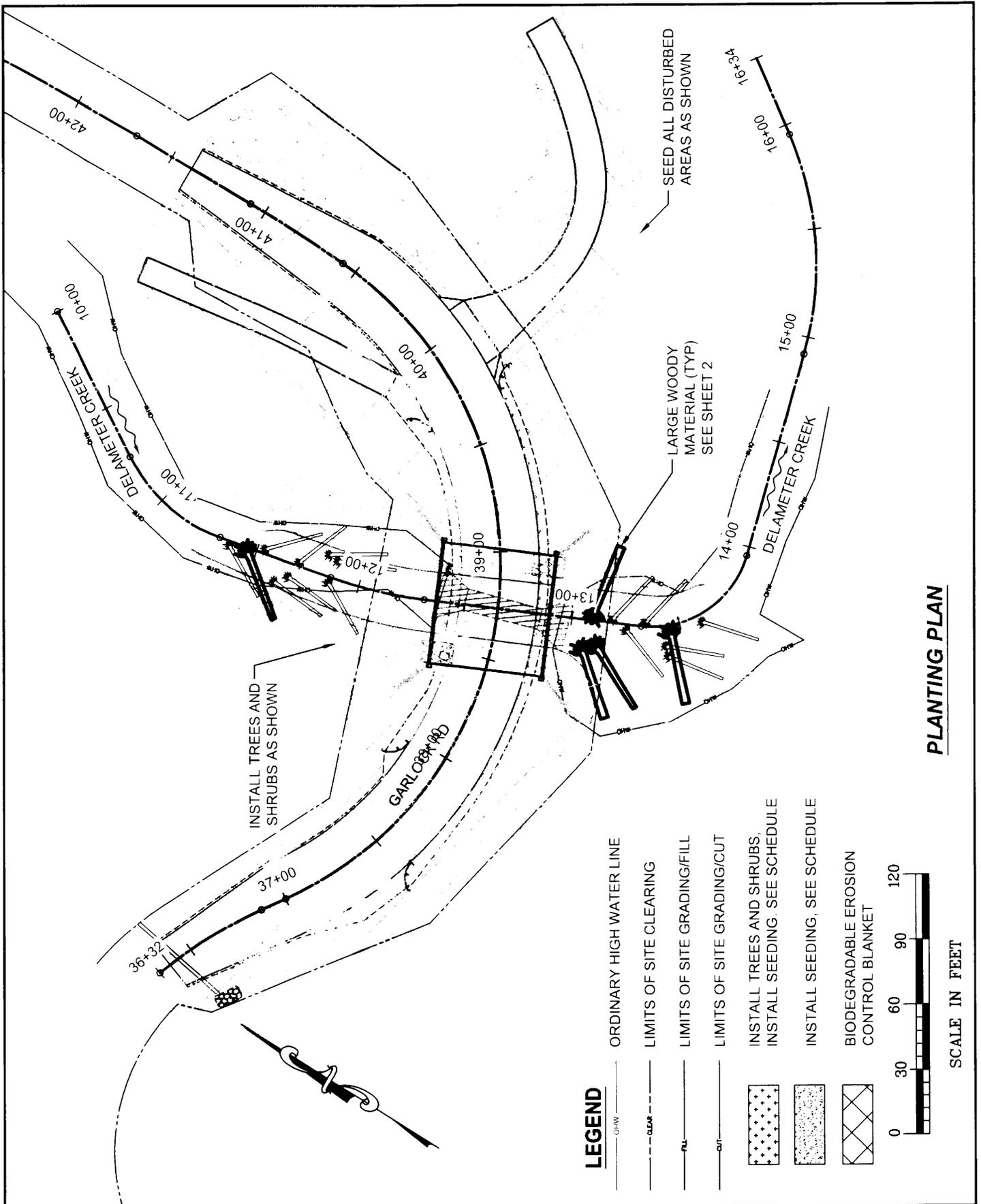
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SHEET
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OF
12



PLANTING PLAN

LEGEND

- OHW — ORDINARY HIGH WATER LINE
- - - CLEAR - - - LIMITS OF SITE CLEARING
- FILL — LIMITS OF SITE GRADING/FILL
- CUT — LIMITS OF SITE GRADING/CUT
- [Pattern: Stars] INSTALL TREES AND SHRUBS, INSTALL SEEDING - SEE SCHEDULE
- [Pattern: Dots] INSTALL SEEDING, SEE SCHEDULE
- [Pattern: X's] BIODEGRADABLE EROSION CONTROL BLANKET



R.E.M.
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Fish Passage Project

COWLITZ COUNTY

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PLANTING NOTES

1. VERIFY ALL QUANTITIES OF PLANTS IN ALL LOCATIONS AND QUANTITIES SHOWN GRAPHICALLY ON THE PLANS.
2. MEASUREMENTS, CALIPER, BRANCHING, AND GRADING QUALITY SHALL FOLLOW THE AMERICAN STANDARD OF NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN, LATEST EDITION. PLANT MATERIAL SHALL CONFORM TO MINIMUM STANDARDS OF ANSI Z60. 1, LATEST EDITION.
3. ALL PLANT MATERIAL SHALL BE NURSERY GROWN. PROVIDE ONLY SOUND, HEALTHY, VIGOROUS PLANTS, FREE OF DEFECTS, DISEASE, AND ALL FORM OF INFESTATION, DISEASE, AND ALL FORM OF INFESTATION, PLANTS WILL HAVE WELL-DEVELOPED ROOTS AND STURDY STEMS.
4. INSTALL SEEDING AND PLANTS DURING PLANTING WINDOW. SEE WSDOT STANDARD SPECIFICATIONS.
5. LAYOUT OF TREES AND SHRUBS SHALL BE RANDOM IN GROUPS OF 3-5 PER PLANT SPACING SHOWN IN LEGEND. LAYOUT OF SPACING SHOWN IN LEGEND. LAYOUT OF PLANTING AREAS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
6. PROVIDE MINIMUM 12 INCHES OF TOPSOIL TYPE B IN SEEDED AREAS.
7. INSTALL 2 INCH FINE COMPOST BLANKET IN ALL SHRUB AND TREE AREAS AFTER PLANTING.
8. SHRUBS AND TREES SHALL BE PLANTED IN ACCORDANCE WITH WSDOT STANDARD DETAIL H-10. 10-00.
9. FERTILIZING: INSTALL ONE, 21-GRAM FERTILIZER TABLED (20-10-5) AT EACH PLANTED TREE AND SHRUB PER MANUFACTURER'S RECOMMENDATIONS.
10. THE SEED MIX WILL BE INSTALLED IN ACCORDANCE WITH THE RATES LISTED IN TABLE 2 AND THE WSDOT STANDARD SPECIFICATION. AREAS ALREADY SEEDED AS PART OF EROSION CONTROL MEASURES THAT REMAIN UNDISTURBED AT THE END OF CONSTRUCTION ACTIVITIES, DO NOT REQUIRE ADDITIONAL SEEDING.
11. BIODEGRADABLE EROSION CONTROL BLANKETS PLACED ON SLOPES AFTER SEEDING.

TABLE 1. TREE AND SHRUB SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE/CONDITION	SPACING ON-CENTER	QUANTITY
ACER MACROPHYLLUM	BIGLEAF MAPLE	1 GALLON	15 FT	14
ALNUS RUBRA	RED ALDER	1 GALLON	15 FT	14
THUJA PLICATA	WESTERN RED CEDAR	1 GALLON	15 FT	14
CORNUS SERICEA	REDTWIG DOGWOOD	10 INCH PLUG	6 FT	30
RUBUS PARVIFLORUS	THIMBLEBERRY	10 INCH PLUG	6 FT	30
SALIX LUCIDA	PACIFIC WILLOW	10 INCH PLUG	6 FT	30
SALIX SITCHENSIS	SITKA WILLOW	10 INCH PLUG	6 FT	30

TABLE 2. SEEDING SCHEDULE

BOTANICAL NAME	COMMON NAME	PERCENTAGE BY WEIGHT	POUNDS OF PURE LIVE SEED (PLS) PER ACRE	SEEDING RATE	AREA	QUANTITY
DESCHAMPSIA ELONGATA	SLENDER HAIRGRASS	0.4%	0.32	80 LBS PLS PER ACRE	0.50 ACRE	40 LBS
ELYMUS GLAUCUS	BLUE WILDRYE	43.0%	34.43			
FESTUCA IDAHONENSIS	IDAHO FESCUE	7.0%	5.61			
FESTUCA OVINA	SHEEP FESCUE	1.2%	0.93			
HORDEUM BRACHYAN THERUM	MEADOW BARLEY	37.1%	29.71			
KOELER CRISTATA	PRAIRIE JUNEGRASS	0.3%	0.27			
LOLIUM MULTIFLORUM	ANNUAL RYEGRASS	10.9%	8.73			
TOTAL:		100%	80.00			

R.E.M. DESIGNED BY D.J.B. DRAWN BY S.E.E. APPROVED BY 4/23/2024 DATE	NWS-2024-XXX Cowlitz County Public Works Garlock Road Fish Passage Project	 COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13th AVENUE SOUTH KELSO, WASHINGTON 98626	SHEET 12 OF 12
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US Army Corps
of Engineers
Seattle District

NATIONWIDE PERMIT 14

Terms and Conditions



2021 NWP - Final 41; Effective Date: February 25, 2022

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- 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
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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

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include 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 that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

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 NWP, 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 14 Specific Regional Conditions:

1. A pre-construction notification must be submitted to the district engineer (see NWP general condition 32) for linear transportation project crossings in tidal waters.

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's regional 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 state general 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 contribute to 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/or waters.

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 listed parameter 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, visit Ecology'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 landscape settings.

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 NWP:

- 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 loss of more than 300 linear feet of streambed Ecology WQC review is required to determine if 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 the project 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 resources wherever practicable. For projects requiring Ecology WQC review or an individual WQC with unavoidable impacts to aquatic 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 a minimum, 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, including credit/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 avoid discharge 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 runoff from impervious surfaces shall be provided.

Ecology's Stormwater Management and Design Manuals and stormwater permit information are available on Ecology's website.

8. Application. For projects or activities that will require Ecology WQC review, or an individual 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 any part 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 the current 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 state general 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:

1. Ecology WQC review is required if the project or activity is in a known contaminated or 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 this NWP if:
 - a. The project or activity impacts more than 1/3 acre of waters; or
 - b. This NWP is authorized in conjunction with any other NWP.

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 NWP's 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 14 is conditionally certified, subject to the general conditions listed above, except that an individual project-specific WQC is required for projects authorized under one or more NWP by the Corps that result(s) in:

1. Greater than 1/10 acre of impacts to waters of the U.S.; or
2. Greater than 300 linear feet of impacts to waters of the U.S.

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:

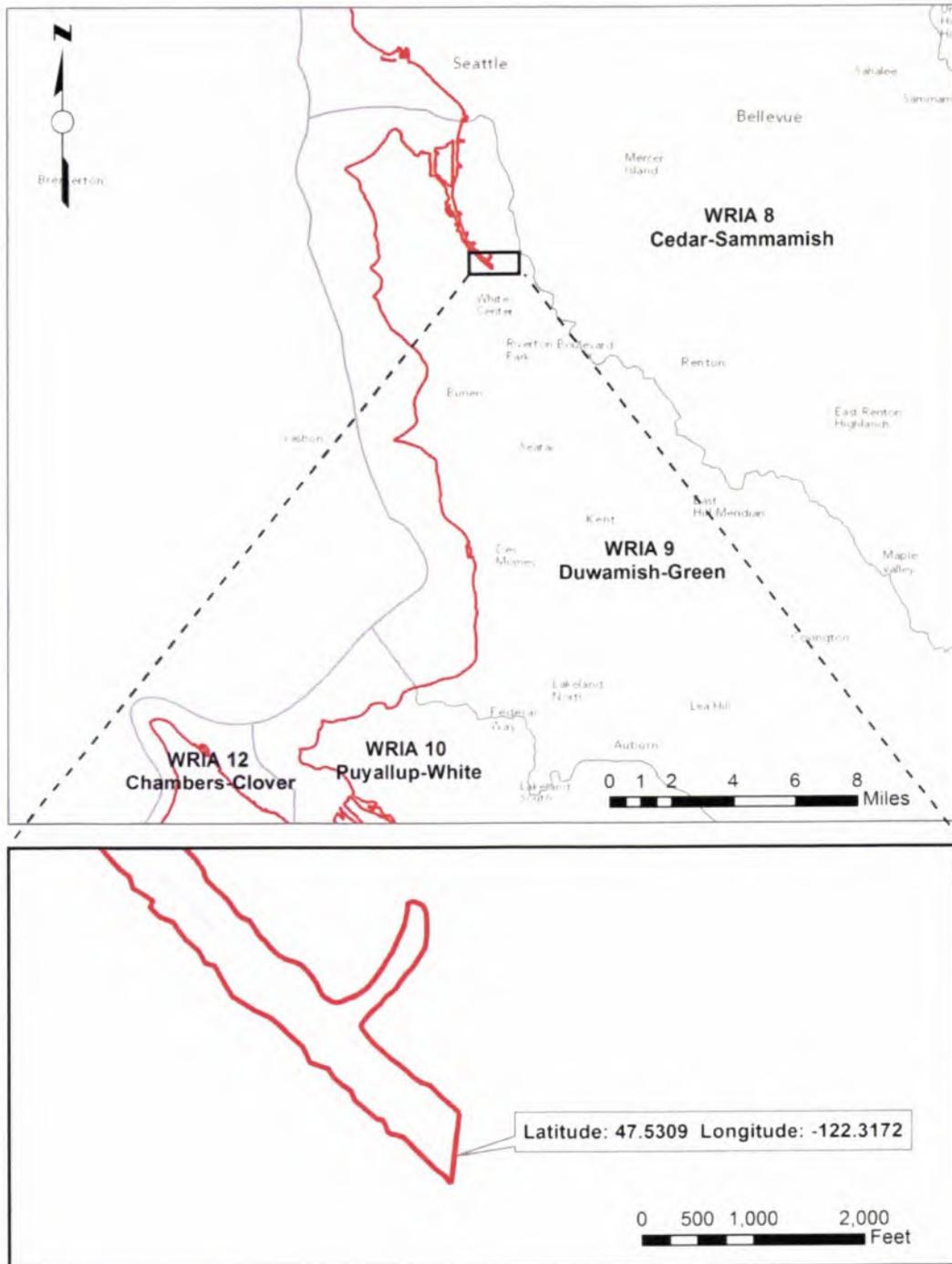
Ecology's determination is that they concur with conditions that this NWP is consistent with CZMA.

CZM Federal Consistency Response – Concur with Conditions.

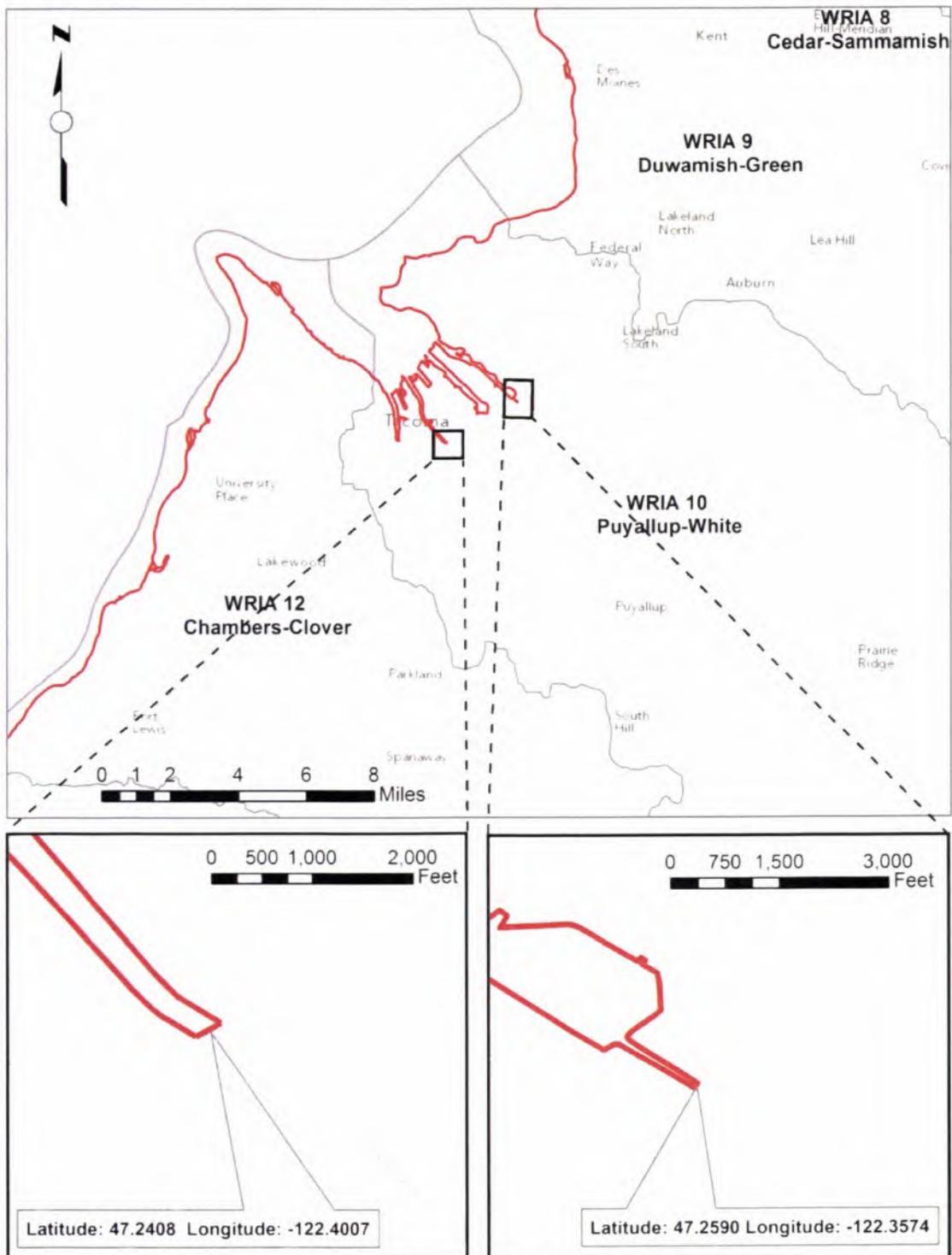
1. A CZM Federal Consistency Decision is required for projects or activities under this NWP if a State 401 Water Quality Certification is required.
2. A CZM Federal Consistency Decision is required for projects or activities under this NWP if they are pre-empting local or state permit requirements necessary to demonstrate compliance with

the CZMP's enforceable policies.

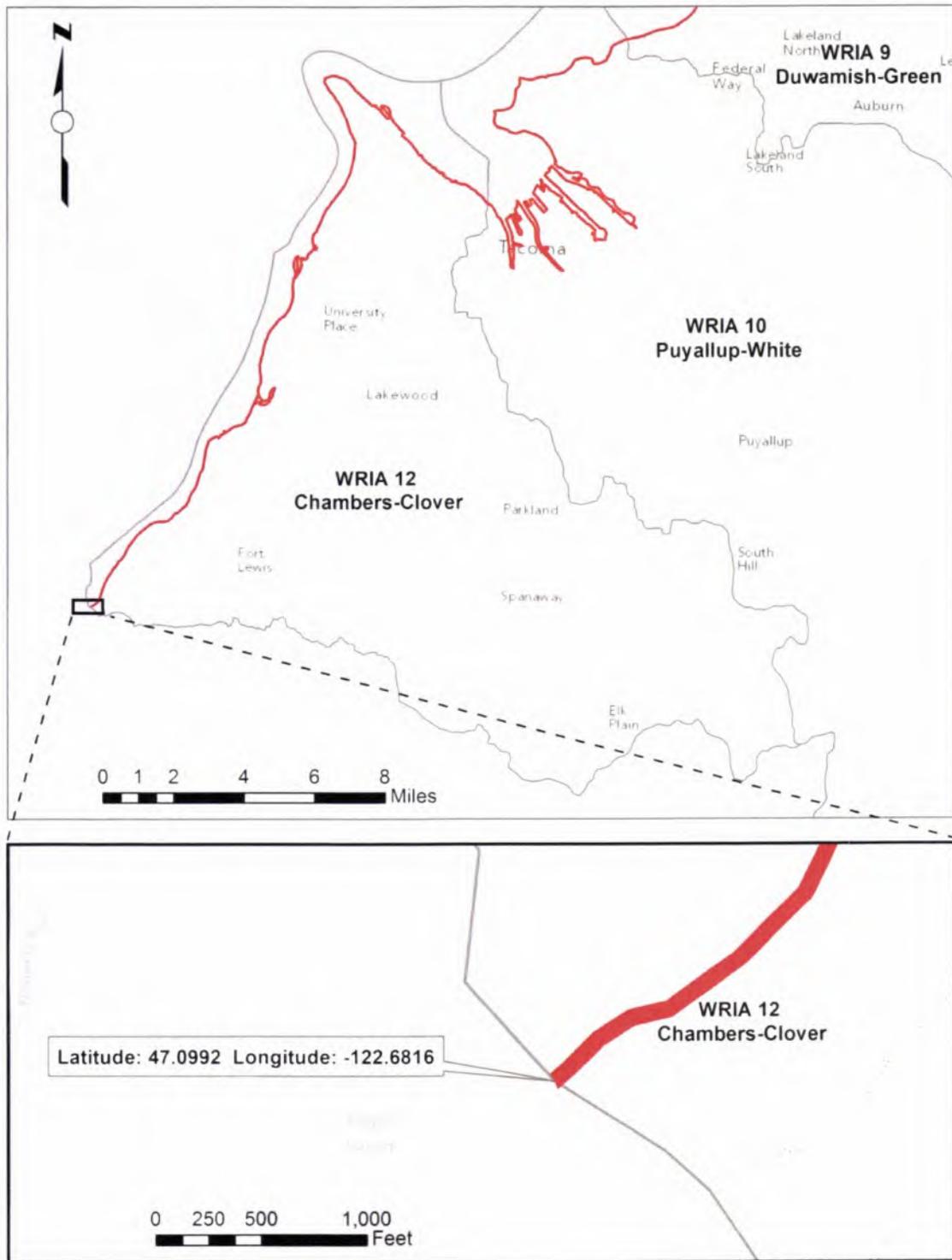
b. WRIA 9



c. WRIA 10



d. WRIA 12



e. WRIA 11

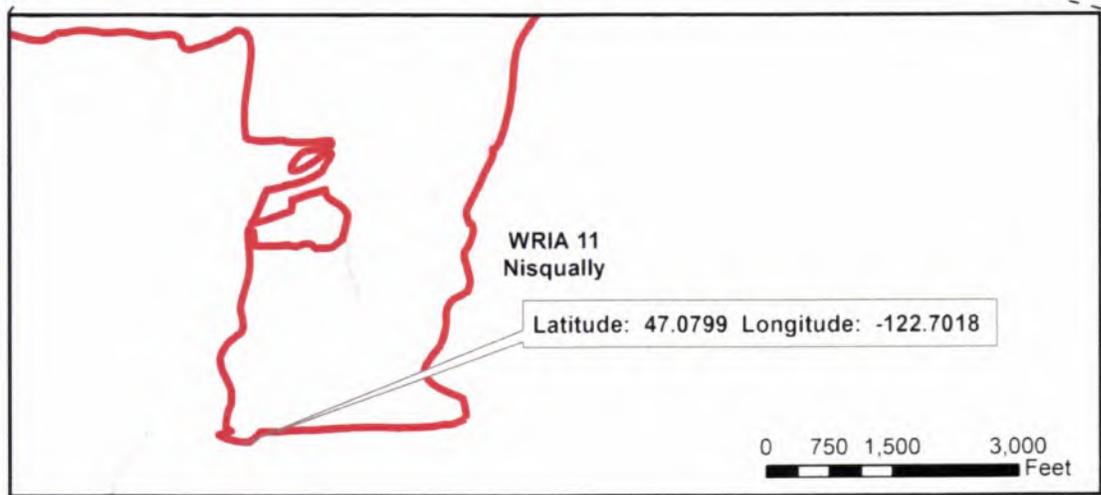
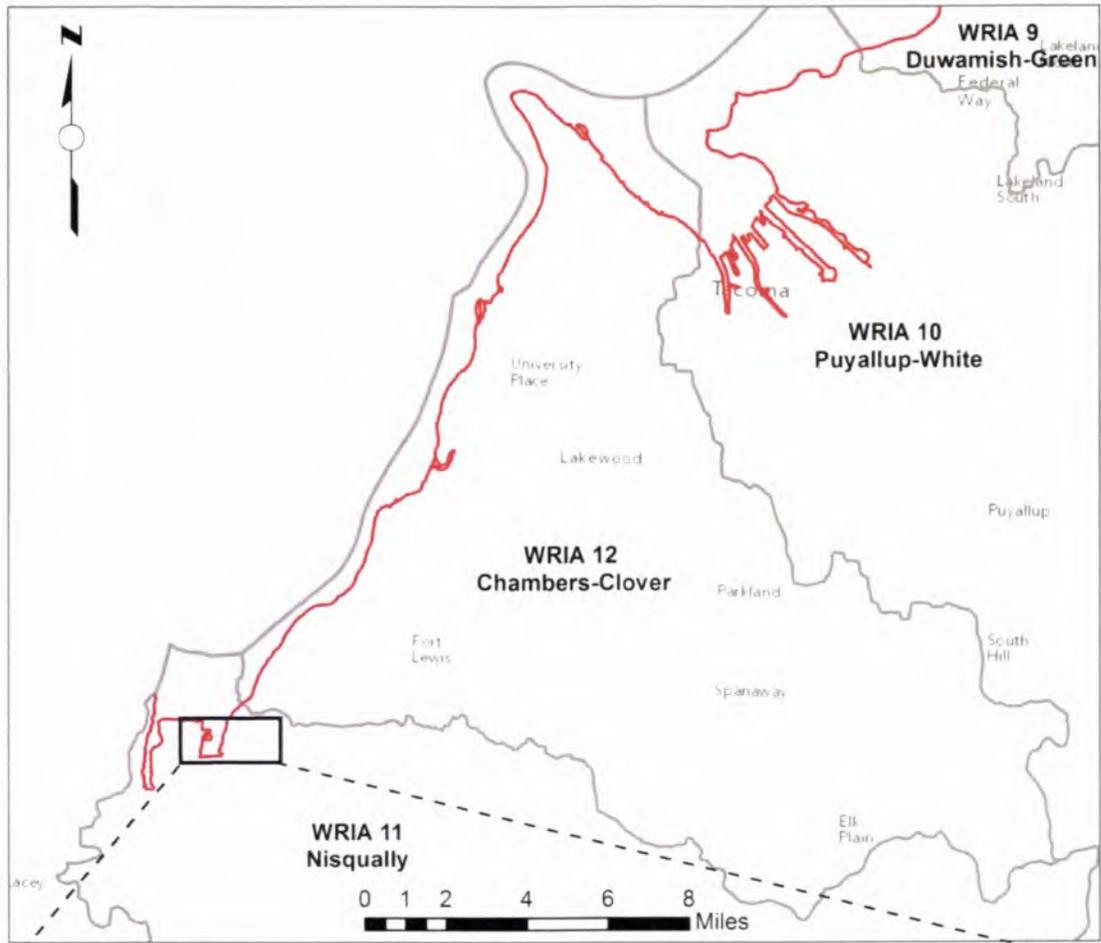
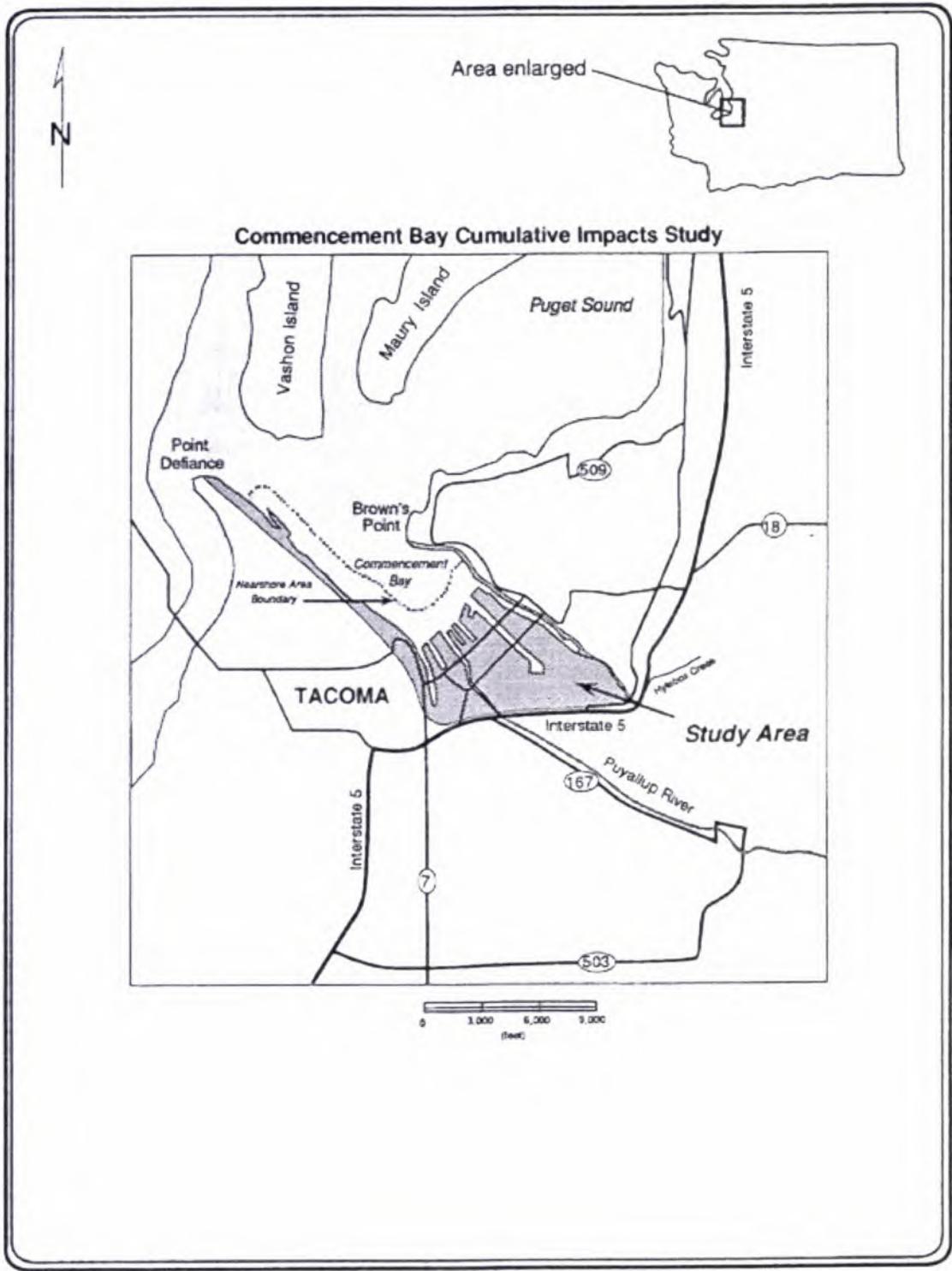


Figure 2. RGC 4 - Commencement Bay Study Area





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.

<input type="checkbox"/>	<p>The work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of this permit.</p> <p>Date work complete: _____</p> <p><input type="checkbox"/> Photographs and as-built drawings of the authorized work (OPTIONAL, unless required as a Special Condition of the permit).</p>
--------------------------	--

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

<input type="checkbox"/>	<p>Provide phone number/email for scheduling site visits (must have legal authority to grant property access).</p> <p>Printed Name: _____</p> <p>Phone Number: _____ Email: _____</p>
--------------------------	---

Printed Name: _____

Signature: _____

Date: _____

APPENDIX D

Construction Stormwater General Permit from Washington State Department of Ecology

Issuance Date: November 18, 2020
Effective Date: January 1, 2021
Expiration Date: December 31, 2025

CONSTRUCTION STORMWATER GENERAL PERMIT

National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge
General Permit for Stormwater Discharges Associated with Construction Activity

State of Washington
Department of Ecology
Olympia, Washington 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)
and
Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

Until this permit expires, is modified, or revoked, Permittees that have properly
obtained coverage under this general permit are authorized to discharge in accordance
with the special and general conditions that follow.



Vincent McGowan, P.E.
Water Quality Program Manager
Washington State Department of Ecology

TABLE OF CONTENTS

LIST OF TABLES	ii
SUMMARY OF PERMIT REPORT SUBMITTALS	1
SPECIAL CONDITIONS	3
S1. Permit Coverage	3
S2. Application Requirements	7
S3. Compliance with Standards	9
S4. Monitoring Requirements, Benchmarks, and Reporting Triggers	10
S5. Reporting and Recordkeeping Requirements	17
S6. Permit Fees	20
S7. Solid and Liquid Waste Disposal	20
S8. Discharges to 303(D) or TMDL Waterbodies	20
S9. Stormwater Pollution Prevention Plan	23
S10. Notice Of Termination	32
GENERAL CONDITIONS	34
G1. Discharge Violations	34
G2. Signatory Requirements	34
G3. Right of Inspection and Entry	35
G4. General Permit Modification and Revocation	35
G5. Revocation of Coverage Under tPermit	35
G6. Reporting a Cause for Modification	36
G7. Compliance with Other Laws and Statutes	36
G8. Duty to Reapply	36
G9. Removed Substance	36
G10. Duty to Provide Information	36
G11. Other Requirements of 40 CFR	37
G12. Additional Monitoring	37
G13. Penalties for Violating Permit Conditions	37
G14. Upset	37
G15. Property Rights	37
G16. Duty to Comply	37
G17. Toxic Pollutants	38
G18. Penalties for Tampering	38
G19. Reporting Planned Changes	38
G20. Reporting Other Information	38
G21. Reporting Anticipated Non-Compliance	38

G22. Requests to Be Excluded From Coverage Under the Permit	39
G23. Appeals.....	39
G24. Severability.....	39
G25. Bypass Prohibited	39
APPENDIX A – DEFINITIONS.....	42
APPENDIX B – ACRONYMS.....	50

LIST OF TABLES

Table 1 Summary of Required Submittals.....	1
Table 2 Summary of Required On-site Documentation.....	2
Table 3 Summary of Primary Monitoring Requirements	12
Table 4 Monitoring and Reporting Requirements	14
Table 5 Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed Waters	22
Table 6 pH Sampling and Limits for 303(d)-Listed Waters.....	22

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

Table 1 Summary of Required Submittals

Permit Section	Submittal	Frequency	First Submittal Date
<u>S5.A</u> and <u>S8</u>	High Turbidity/Transparency Phone Reporting	As Necessary	Within 24 hours
<u>S5.B</u>	Discharge Monitoring Report	Monthly*	Within 15 days following the end of each month
<u>S5.F</u> and <u>S8</u>	Noncompliance Notification - Telephone Notification	As necessary	Within 24 hours
<u>S5.F</u>	Noncompliance Notification - Written Report	As necessary	Within 5 Days of non-compliance
<u>S9.D</u>	Request for Chemical Treatment Form	As necessary	Written approval from Ecology is required prior to using chemical treatment (with the exception of dry ice, CO ₂ or food grade vinegar to adjust pH)
<u>G2</u>	Notice of Change in Authorization	As necessary	
<u>G6</u>	Permit Application for Substantive Changes to the Discharge	As necessary	
<u>G8</u>	Application for Permit Renewal	1/permit cycle	No later than 180 days before expiration
<u>S2.A</u>	Notice of Permit Transfer	As necessary	
<u>G19</u>	Notice of Planned Changes	As necessary	
<u>G21</u>	Reporting Anticipated Non-compliance	As necessary	

NOTE: *Permittees must submit electronic Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology monthly, regardless of site discharge, for the full duration of permit coverage. Refer to Section S5.B of this General Permit for more specific information regarding DMRs.

Table 2 Summary of Required On-site Documentation

Document Title	Permit Conditions
Permit Coverage Letter	See Conditions S2, S5
Construction Stormwater General Permit (CSWGP)	See Conditions S2, S5
Site Log Book	See Conditions S4, S5
Stormwater Pollution Prevention Plan (SWPPP)	See Conditions S5, S9
Site Map	See Conditions S5, S9

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Permit Area

This Construction Stormwater General Permit (CSWGP) covers all areas of Washington State, except for federal operators and Indian Country as specified in Special Condition S1.E.3 and 4.

B. Operators Required to Seek Coverage Under this General Permit

1. Operators of the following construction activities are required to seek coverage under this CSWGP:
 - a. Clearing, grading and/or excavation that results in the disturbance of one or more acres (including off-site disturbance acreage related to construction-support activity as authorized in S1.C.2) and discharges stormwater to surface waters of the State; and clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.
 - i. This category includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, and discharge to surface waters of the State (that is, forest practices that prepare a site for construction activities); and
 - b. Any size construction activity discharging stormwater to waters of the State that the Washington State Department of Ecology (Ecology):
 - i. Determines to be a significant contributor of pollutants to waters of the State of Washington.
 - ii. Reasonably expects to cause a violation of any water quality standard.
2. Operators of the following activities are not required to seek coverage under this CSWGP (unless specifically required under Special Condition S1.B.1.b, above):
 - a. Construction activities that discharge all stormwater and non-stormwater to groundwater, sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.
 - b. Construction activities covered under an Erosivity Waiver (Special Condition S1.F).
 - c. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

C. Authorized Discharges

1. **Stormwater Associated with Construction Activity.** Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge stormwater associated with construction activity to surface waters of the State or to a storm sewer system that drains to surface waters of the State. (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.)

2. **Stormwater Associated with Construction Support Activity.** This permit also authorizes stormwater discharge from support activities related to the permitted construction site (for example, an on-site portable rock crusher, off-site equipment staging yards, material storage areas, borrow areas, etc.) provided:
 - a. The support activity relates directly to the permitted construction site that is required to have an NPDES permit; and
 - b. The support activity is not a commercial operation serving multiple unrelated construction projects, and does not operate beyond the completion of the construction activity; and
 - c. Appropriate controls and measures are identified in the Stormwater Pollution Prevention Plan (SWPPP) for the discharges from the support activity areas.
3. **Non-Stormwater Discharges.** The categories and sources of non-stormwater discharges identified below are authorized conditionally, provided the discharge is consistent with the terms and conditions of this permit:
 - a. Discharges from fire-fighting activities.
 - b. Fire hydrant system flushing.
 - c. Potable water, including uncontaminated water line flushing.
 - d. Hydrostatic test water.
 - e. Uncontaminated air conditioning or compressor condensate.
 - f. Uncontaminated groundwater or spring water.
 - g. Uncontaminated excavation dewatering water (in accordance with S9.D.10).
 - h. Uncontaminated discharges from foundation or footing drains.
 - i. Uncontaminated or potable water used to control dust. Permittees must minimize the amount of dust control water used.
 - j. Routine external building wash down that does not use detergents.
 - k. Landscape irrigation water.

The SWPPP must adequately address all authorized non-stormwater discharges, except for discharges from fire-fighting activities, and must comply with Special Condition S3. At a minimum, discharges from potable water (including water line flushing), fire hydrant system flushing, and pipeline hydrostatic test water must undergo the following: dechlorination to a concentration of 0.1 parts per million (ppm) or less, and pH adjustment to within 6.5 – 8.5 standard units (su), if necessary.

D. Prohibited Discharges

The following discharges to waters of the State, including groundwater, are prohibited:

1. Concrete wastewater
2. Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials.
3. Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.2 (See Appendix A of this permit).
4. Slurry materials and waste from shaft drilling, including process wastewater from shaft drilling for construction of building, road, and bridge foundations unless managed according to Special Condition S9.D.9.j.
5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
6. Soaps or solvents used in vehicle and equipment washing.
7. Wheel wash wastewater, unless managed according to Special Condition S9.D.9.
8. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to Special Condition S9.D.10.

E. Limits on Coverage

Ecology may require any discharger to apply for and obtain coverage under an individual permit or another more specific general permit. Such alternative coverage will be required when Ecology determines that this CSWGP does not provide adequate assurance that water quality will be protected, or there is a reasonable potential for the project to cause or contribute to a violation of water quality standards.

The following stormwater discharges are not covered by this permit:

1. Post-construction stormwater discharges that originate from the site after completion of construction activities and the site has undergone final stabilization.
2. Non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance, from which there is natural runoff as excluded in 40 CFR Subpart 122.
3. Stormwater from any federal operator.
4. Stormwater from facilities located on **Indian Country** as defined in 18 U.S.C. §1151, except portions of the Puyallup Reservation as noted below.

Indian Country includes:

- a. All land within any Indian Reservation notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation. This includes all federal, tribal, and Indian and non-Indian privately owned land within the reservation.
- b. All off-reservation Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
- c. All off-reservation federal trust lands held for Native American Tribes.

Puyallup Exception: Following the *Puyallup Tribes of Indians Land Settlement Act of 1989*, 25 U.S.C. §1773; the permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

5. Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.
6. Stormwater from a site where an applicable Total Maximum Daily Load (TMDL) requirement specifically precludes or prohibits discharges from construction activity.

F. Erosivity Waiver

Construction site operators may qualify for an Erosivity Waiver from the CSWGP if the following conditions are met:

1. The site will result in the disturbance of fewer than five (5) acres and the site is not a portion of a common plan of development or sale that will disturb five (5) acres or greater.
2. Calculation of Erosivity "R" Factor and Regional Timeframe:
 - a. The project's calculated rainfall erosivity factor ("R" Factor) must be less than five (5) during the period of construction activity, (See the CSWGP homepage <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html> for a link to the EPA's calculator and step by step instructions on computing the "R" Factor in the *EPA Erosivity Waiver Fact Sheet*). The period of construction activity starts when the land is first disturbed and ends with final stabilization. In addition:
 - b. The entire period of construction activity must fall within the following timeframes:
 - i. For sites west of the Cascades Crest: June 15 – September 15.
 - ii. For sites east of the Cascades Crest, excluding the Central Basin: June 15 – October 15.
 - iii. For sites east of the Cascades Crest, within the Central Basin: no timeframe restrictions apply. The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches. For a map of the Central Basin (Average Annual Precipitation Region 2), refer to: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/resourcesguidance.html>.
3. Construction site operators must submit a complete Erosivity Waiver certification form at least one week before disturbing the land. Certification must include statements that the operator will:
 - a. Comply with applicable local stormwater requirements; and
 - b. Implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.
4. This waiver is not available for facilities declared significant contributors of pollutants as defined in Special Condition S1.B.1.b or for any size construction activity that could

reasonably expect to cause a violation of any water quality standard as defined in Special Condition S1.B.1.b.ii.

5. This waiver does not apply to construction activities which include non-stormwater discharges listed in Special Condition S1.C.3.
6. If construction activity extends beyond the certified waiver period for any reason, the operator must either:
 - a. Recalculate the rainfall erosivity "R" factor using the original start date and a new projected ending date and, if the "R" factor is still under 5 *and* the entire project falls within the applicable regional timeframe in Special Condition S1.F.2.b, complete and submit an amended waiver certification form before the original waiver expires; *or*
 - b. Submit a complete permit application to Ecology in accordance with Special Condition S2.A and B before the end of the certified waiver period.

S2. APPLICATION REQUIREMENTS

A. Permit Application Forms

1. *Notice of Intent Form*

- a. Operators of new or previously unpermitted construction activities must submit a complete and accurate permit application (Notice of Intent, or NOI) to Ecology.
- b. Operators must apply using the electronic application form (NOI) available on Ecology's website (<http://ecy.wa.gov/programs/wq/stormwater/construction/index.html>). Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, Washington 98504-7696

- c. The operator must submit the NOI at least 60 days before discharging stormwater from construction activities and must submit it prior to the date of the first public notice (See Special Condition S2.B, below, for details). The 30-day public comment period begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, coverage under the general permit will automatically commence on the 31st day following receipt by Ecology of a *completed* NOI, or the issuance date of this permit, whichever is later; unless Ecology specifies a later date in writing as required by WAC173-226-200(2). See S8.B for Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters.
- d. If an applicant intends to use a Best Management Practice (BMP) selected on the basis of Special Condition S9.C.4 ("demonstrably equivalent" BMPs), the applicant must notify Ecology of its selection as part of the NOI. In the event the applicant selects BMPs after submission of the NOI, the applicant must provide notice of the

selection of an equivalent BMP to Ecology at least 60 days before intended use of the equivalent BMP.

- e. Applicants must notify Ecology if they are aware of contaminated soils and/or groundwater associated with the construction activity. Provide detailed information with the NOI (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth), as well as pollution prevention and/or treatment BMPs proposed to control the discharge of soil and/or groundwater contaminants in stormwater. Examples of such detail may include, but are not limited to:
 - i. List or table of all known contaminants with laboratory test results showing concentration and depth,
 - ii. Map with sample locations,
 - iii. Related portions of the Stormwater Pollution Prevention Plan (SWPPP) that address the management of contaminated and potentially contaminated construction stormwater and dewatering water,
 - iv. Dewatering plan and/or dewatering contingency plan.

2. ***Transfer of Coverage Form***

The Permittee can transfer current coverage under this permit to one or more new operators, including operators of sites within a Common Plan of Development, provided:

- i. The Permittee submits a complete Transfer of Coverage Form to Ecology, signed by the current and new discharger and containing a specific date for transfer of permit responsibility, coverage and liability (including any Administrative Orders associated with the permit); and
- ii. Ecology does not notify the current discharger and new discharger of intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

When a current discharger (Permittee) transfers a portion of a permitted site, the current discharger must also indicate the remaining permitted acreage after the transfer. Transfers do not require public notice.

3. ***Modification of Coverage Form***

Permittees must notify Ecology regarding any changes to the information provided on the NOI by submitting an Update/Modification of Permit Coverage form in accordance with General Conditions G6 and G19. Examples of such changes include, but are not limited to:

- i. Changes to the Permittee's mailing address,
- ii. Changes to the on-site contact person information, and
- iii. Changes to the area/acreage affected by construction activity.

B. Public Notice

For new or previously unpermitted construction activities, the applicant must publish a public notice at least one time each week for two consecutive weeks, at least 7 days apart, in a newspaper with general circulation in the county where the construction is to take place. The notice must be run after the NOI has been submitted and must contain:

1. A statement that *“The applicant is seeking coverage under the Washington State Department of Ecology’s Construction Stormwater NPDES and State Waste Discharge General Permit.”*
2. The name, address, and location of the construction site.
3. The name and address of the applicant.
4. The type of construction activity that will result in a discharge (for example, residential construction, commercial construction, etc.), and the total number of acres to be disturbed over the lifetime of the project.
5. The name of the receiving water(s) (that is, the surface water(s) to which the site will discharge), or, if the discharge is through a storm sewer system, the name of the operator of the system and the receiving water(s) the system discharges to.
6. The statement: *Any persons desiring to present their views to the Washington State Department of Ecology regarding this application, or interested in Ecology’s action on this application, may notify Ecology in writing no later than 30 days of the last date of publication of this notice. Ecology reviews public comments and considers whether discharges from this project would cause a measurable change in receiving water quality, and, if so, whether the project is necessary and in the overriding public interest according to Tier II antidegradation requirements under WAC 173-201A-320. Comments can be submitted to: Department of Ecology, PO Box 47696, Olympia, Washington 98504-7696 Attn: Water Quality Program, Construction Stormwater.*

S3. COMPLIANCE WITH STANDARDS

- A. **Discharges must not** cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the Federal water quality criteria applicable to Washington. (40 CFR Part 131.45) Discharges that are not in compliance with these standards are prohibited.
- B. **Prior to the discharge** of stormwater and non-stormwater to waters of the State, the Permittee must apply All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.
- C. **Ecology presumes** that a Permittee complies with water quality standards unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully:

1. Comply with all permit conditions, including; planning, sampling, monitoring, reporting, and recordkeeping conditions.
 2. Implement stormwater BMPs contained in stormwater management manuals published or approved by Ecology, or BMPs that are demonstrably equivalent to BMPs contained in stormwater management manuals published or approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the *Phase I Municipal Stormwater Permit* are approved by Ecology.)
- D. Where construction sites** also discharge to groundwater, the groundwater discharges must also meet the terms and conditions of this CSWGP. Permittees who discharge to groundwater through an injection well must also comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.

S4. MONITORING REQUIREMENTS, BENCHMARKS, AND REPORTING TRIGGERS

A. Site Log Book

The Permittee must maintain a site log book that contains a record of the implementation of the SWPPP and other permit requirements, including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.

B. Site Inspections

Construction sites one (1) acre or larger that discharge stormwater to surface waters of the State must have site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL). Sites less than one (1) acre may have a person without CESCL certification conduct inspections. (See Special Conditions S4.B.3 and B.4, below, for detailed requirements of the Permittee's CESCL.)

Site inspections must include all areas disturbed by construction activities, all BMPs, and all stormwater discharge points under the Permittee's operational control.

1. The Permittee must have staff knowledgeable in the principles and practices of erosion and sediment control. The CESCL (sites one acre or more) or inspector (sites less than one acre) must have the skills to assess the:
 - a. Site conditions and construction activities that could impact the quality of stormwater; and
 - b. Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges. The SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times. The CESCL (sites one (1) acre or more) must obtain this certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology. (See BMP C160 in the manual, referred to in Special Condition S9.C.1 and 2.)
2. The CESCL or inspector must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen. BMP effectiveness must be evaluated to

determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

Based on the results of the inspection, the Permittee must correct the problems identified, by:

- a. Reviewing the SWPPP for compliance with Special Condition S9 and making appropriate revisions within 7 days of the inspection.
 - b. Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs, within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
 - c. Documenting BMP implementation and maintenance in the site log book.
3. The CESCL or inspector must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one (1) day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one (1) inspection is required that week.) Inspection frequency may be reduced to once every calendar month for inactive sites that are temporarily stabilized.
4. The Permittee must summarize the results of each inspection in an inspection report or checklist and enter the report/checklist into, or attach it to, the site log book. At a minimum, each inspection report or checklist must include:
- a. Inspection date and time.
 - b. Weather information.
 - c. The general conditions during inspection.
 - d. The approximate amount of precipitation since the last inspection.
 - e. The approximate amount of precipitation within the last 24 hours.
 - f. A summary or list of all implemented BMPs, including observations of all erosion/sediment control structures or practices.
 - g. A description of:
 - i. BMPs inspected (including location).
 - ii. BMPs that need maintenance and why.
 - iii. BMPs that failed to operate as designed or intended, and
 - iv. Where additional or different BMPs are needed, and why.
 - h. A description of stormwater discharged from the site. The Permittee must note the presence of suspended sediment, turbidity, discoloration, and oil sheen, as applicable.

- i. Any water quality monitoring performed during inspection.
- j. General comments and notes, including a brief description of any BMP repairs, maintenance, or installations made following the inspection.
- k. An implementation schedule for the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.
- l. A summary report of the inspection.
- m. The name, title, and signature of the person conducting the site inspection, a phone number or other reliable method to reach this person, and the following statement:
I certify that this report is true, accurate, and complete to the best of my knowledge and belief.

Table 3 Summary of Primary Monitoring Requirements

Size of Soil Disturbance¹	Weekly Site Inspections	Weekly Sampling w/ Turbidity Meter	Weekly Sampling w/ Transparency Tube	Weekly pH Sampling²	CESCL Required for Inspections?
Sites that disturb less than 1 acre, but are part of a larger Common Plan of Development	Required	Not Required	Not Required	Not Required	No
Sites that disturb 1 acre or more, but fewer than 5 acres	Required	Sampling Required - either method ³		Required	Yes
Sites that disturb 5 acres or more	Required	Required	Not Required ⁴	Required	Yes

¹ Soil disturbance is calculated by adding together all areas that will be affected by construction activity. Construction activity means clearing, grading, excavation, and any other activity that disturbs the surface of the land, including ingress/egress from the site.

² If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (1,000 cubic yards of concrete or recycled concrete placed or poured over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer stormwater collection system that drains to other surface waters of the State, the Permittee must conduct pH sampling in accordance with Special Condition S4.D.

³ Sites with one or more acres, but fewer than 5 acres of soil disturbance, must conduct turbidity or transparency sampling in accordance with Special Condition S4.C.4.a or b.

⁴ Sites equal to or greater than 5 acres of soil disturbance must conduct turbidity sampling using a turbidity meter in accordance with Special Condition S4.C.4.a.

C. Turbidity/Transparency Sampling Requirements

1. Sampling Methods

- a. If construction activity involves the disturbance of five (5) acres or more, the Permittee must conduct turbidity sampling per Special Condition S4.C.4.a, below.
- b. If construction activity involves one (1) acre or more but fewer than five (5) acres of soil disturbance, the Permittee must conduct either transparency sampling *or* turbidity sampling per Special Condition S4.C.4.a or b, below.

2. Sampling Frequency

- a. The Permittee must sample all discharge points at least once every calendar week when stormwater (or authorized non-stormwater) discharges from the site or enters any on-site surface waters of the state (for example, a creek running through a site); sampling is not required on sites that disturb less than an acre.
- b. Samples must be representative of the flow and characteristics of the discharge.
- c. Sampling is not required when there is no discharge during a calendar week.
- d. Sampling is not required outside of normal working hours or during unsafe conditions.
- e. If the Permittee is unable to sample during a monitoring period, the Permittee must include a brief explanation in the monthly Discharge Monitoring Report (DMR).
- f. Sampling is not required before construction activity begins.
- g. The Permittee may reduce the sampling frequency for temporarily stabilized, inactive sites to once every calendar month.

3. Sampling Locations

- a. Sampling is required at all points where stormwater associated with construction activity (or authorized non-stormwater) is discharged off site, including where it enters any on-site surface waters of the state (for example, a creek running through a site).
- b. The Permittee may discontinue sampling at discharge points that drain areas of the project that are fully stabilized to prevent erosion.
- c. The Permittee must identify all sampling point(s) in the SWPPP and on the site map and clearly mark these points in the field with a flag, tape, stake or other visible marker.
- d. Sampling is not required for discharge that is sent directly to sanitary or combined sewer systems.
- e. The Permittee may discontinue sampling at discharge points in areas of the project where the Permittee no longer has operational control of the construction activity.

4. Sampling and Analysis Methods

- a. The Permittee performs turbidity analysis with a calibrated turbidity meter (turbidimeter) either on site or at an accredited lab. The Permittee must record the results in the site log book in nephelometric turbidity units (NTUs).
- b. The Permittee performs transparency analysis on site with a 1¼ inch diameter, 60 centimeter (cm)-long transparency tube. The Permittee will record the results in the site log book in centimeters (cm).

Table 4 Monitoring and Reporting Requirements

Parameter	Unit	Analytical Method	Sampling Frequency	Benchmark Value
Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs
Transparency	Cm	Manufacturer instructions, or Ecology guidance	Weekly, if discharging	33 cm

5. Turbidity/Transparency Benchmark Values and Reporting Triggers

The benchmark value for turbidity is 25 NTUs. The benchmark value for transparency is 33 centimeters (cm). Note: Benchmark values do not apply to discharges to segments of water bodies on Washington State’s 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus; these discharges are subject to a numeric effluent limit for turbidity. Refer to Special Condition S8 for more information and follow S5.F – Noncompliance Notification for reporting requirements applicable to discharges which exceed the numeric effluent limit for turbidity.

- a. Turbidity 26 – 249 NTUs, or Transparency 32 – 7 cm:

If the discharge turbidity is 26 to 249 NTUs; or if discharge transparency is 32 to 7 cm, the Permittee must:

- i. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs, and no later than 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- ii. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
- iii. Document BMP implementation and maintenance in the site log book.

- b. Turbidity 250 NTUs or greater, or Transparency 6 cm or less:

If a discharge point’s turbidity is 250 NTUs or greater, or if discharge transparency is less than or equal to 6 cm, the Permittee must complete the reporting and adaptive

management process described below. For discharges which are subject to a numeric effluent limit for turbidity, see S5.F – Noncompliance Notification.

- i. Within 24 hours, telephone or submit an electronic report to the applicable Ecology Region's Environmental Report Tracking System (ERTS) number (or through Ecology's Water Quality Permitting Portal [WQWebPortal] – Permit Submittals when the form is available), in accordance with Special Condition S5.A.
 - **Central Region** (Okanogan, Chelan, Douglas, Kittitas, Yakima, Klickitat, Benton): (509) 575-2490
 - **Eastern Region** (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400
 - **Northwest Region** (Kitsap, Snohomish, Island, King, San Juan, Skagit, Whatcom): (425) 649-7000
 - **Southwest Region** (Grays Harbor, Lewis, Mason, Thurston, Pierce, Clark, Cowlitz, Skamania, Wahkiakum, Clallam, Jefferson, Pacific): (360) 407-6300

These numbers and a link to the ERTS reporting page are also listed at the following website: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>.

- ii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- iii. Sample discharges daily until:
 - a) Turbidity is 25 NTUs (or lower); or
 - b) Transparency is 33 cm (or greater); or
 - c) The Permittee has demonstrated compliance with the water quality standard for turbidity:
 - 1) No more than 5 NTUs over background turbidity, if background is less than 50 NTUs, or
 - 2) No more than 10% over background turbidity, if background is 50 NTUs or greater; or

*Note: background turbidity in the receiving water must be measured immediately upstream (upgradient) or outside of the area of influence of the discharge.
 - d) The discharge stops or is eliminated.
- iv. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within seven (7) days of the date the discharge exceeded the benchmark.

- v. Document BMP implementation and maintenance in the site log book.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with permit benchmarks.

D. pH Sampling Requirements – Significant Concrete Work or Engineered Soils

If construction activity results in the disturbance of 1 acre or more, *and* involves significant concrete work (significant concrete work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer system that drains to surface waters of the State, the Permittee must conduct pH sampling as set forth below. Note: In addition, discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for high pH are subject to a numeric effluent limit for pH; refer to Special Condition S8.

1. The Permittee must perform pH analysis on site with a calibrated pH meter, pH test kit, or wide range pH indicator paper. The Permittee must record pH sampling results in the site log book.
2. During the applicable pH monitoring period defined below, the Permittee must obtain a representative sample of stormwater and conduct pH analysis at least once per week.
 - a. For sites with significant concrete work, the Permittee must begin the pH sampling period when the concrete is first placed or poured and exposed to precipitation, and continue weekly throughout and after the concrete placement, pour and curing period, until stormwater pH is in the range of 6.5 to 8.5 (su).
 - b. For sites with recycled concrete where monitoring is required, the Permittee must begin the weekly pH sampling period when the recycled concrete is first exposed to precipitation and must continue until the recycled concrete is fully stabilized with the stormwater pH in the range of 6.5 to 8.5 (su).
 - c. For sites with engineered soils, the Permittee must begin the pH sampling period when the soil amendments are first exposed to precipitation and must continue until the area of engineered soils is fully stabilized.
3. The Permittee must sample pH in the sediment trap/pond(s) or other locations that receive stormwater runoff from the area of significant concrete work or engineered soils before the stormwater discharges to surface waters.
4. The benchmark value for pH is 8.5 standard units. Anytime sampling indicates that pH is 8.5 or greater, the Permittee must either:
 - a. Prevent the high pH water (8.5 or above) from entering storm sewer systems or surface waters of the state; *or*
 - b. If necessary, adjust or neutralize the high pH water until it is in the range of pH 6.5 to 8.5 (su) using an appropriate treatment BMP such as carbon dioxide (CO₂) sparging, dry ice or food grade vinegar. The Permittee must obtain written approval from Ecology before using any form of chemical treatment other than CO₂ sparging, dry ice or food grade vinegar.

S5. REPORTING AND RECORDKEEPING REQUIREMENTS

A. High Turbidity Reporting

Anytime sampling performed in accordance with Special Condition S4.C indicates turbidity has reached the 250 NTUs or more (or transparency less than or equal to 6 cm), high turbidity reporting level, the Permittee must notify Ecology within 24 hours of analysis either by calling the applicable Ecology Region's Environmental Report Tracking System (ERTS) number by phone or by submitting an electronic ERTS report (through Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals when the form is available). See the CSWGP website for links to ERTS and the WQWebPortal. (<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>) Also, see phone numbers in Special Condition S4.C.5.b.i.

B. Discharge Monitoring Reports (DMRs)

Permittees required to conduct water quality sampling in accordance with Special Conditions S4.C (Turbidity/Transparency), S4.D (pH), S8 (303[d]/TMDL sampling), and/or G12 (Additional Sampling) must submit the results to Ecology.

Permittees must submit monitoring data using Ecology's WQWebDMR web application accessed through Ecology's Water Quality Permitting Portal.

Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR at:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

Permittees who obtain a waiver not to use WQWebDMR must use the forms provided to them by Ecology; submittals must be mailed to the address above. Permittees must submit DMR forms to be received by Ecology within 15 days following the end of each month.

If there was no discharge during a given monitoring period, all Permittees must submit a DMR as required with "no discharge" entered in place of the monitoring results. DMRs are required for the full duration of permit coverage (from the first full month following the effective date of permit coverage up until Ecology has approved termination of the coverage). For more information, contact Ecology staff using information provided at the following website: www.ecy.wa.gov/programs/wq/permits/paris/contacts.html

C. Records Retention

The Permittee must retain records of all monitoring information (site log book, sampling results, inspection reports/checklists, etc.), Stormwater Pollution Prevention Plan, copy of the permit coverage letter (including Transfer of Coverage documentation) and any other documentation of compliance with permit requirements for the entire life of the construction project and for a minimum of five (5) years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this permit. This period of retention must be extended during

the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

D. Recording Results

For each measurement or sample taken, the Permittee must record the following information:

1. Date, place, method, and time of sampling or measurement.
2. The first and last name of the individual who performed the sampling or measurement.
3. The date(s) the analyses were performed.
4. The first and last name of the individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

E. Additional Monitoring by the Permittee

If the Permittee samples or monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 of this permit, the sampling results for this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.

F. Noncompliance Notification

In the event the Permittee is unable to comply with any part of the terms and conditions of this permit, and the resulting noncompliance may cause a threat to human health or the environment (such as but not limited to spills or fuels or other materials, catastrophic pond or slope failure, and discharges that violate water quality standards), or exceed numeric effluent limitations (see S8 – Discharges to 303(d) or TMDL Waterbodies), the Permittee must, upon becoming aware of the circumstance:

1. Notify Ecology within 24 hours of the failure to comply by calling the applicable Regional office ERTS phone number (refer to Special Condition S4.C.5.b.i, or go to <https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue> to find contact information for the regional offices.)
2. Immediately take action to prevent the discharge/pollution, or otherwise stop or correct the noncompliance, and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to Ecology within five (5) days of becoming aware of the violation (See S5.F.3, below, for details on submitting results in a report).
3. Submit a detailed written report to Ecology within five (5) days of the time the Permittee becomes aware of the circumstances, unless requested earlier by Ecology. The report must be submitted using Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals, unless a waiver from electronic reporting has been granted according to S5.B. The report must contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Permittee must report any unanticipated bypass and/or upset that exceeds any effluent limit in the permit in accordance with the 24-hour reporting requirement contained in 40 C.F.R. 122.41(l)(6).

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Upon request of the Permittee, Ecology may waive the requirement for a written report on a case-by-case basis, if the immediate notification is received by Ecology within 24 hours.

G. Access to Plans and Records

1. The Permittee must retain the following permit documentation (plans and records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology or the local jurisdiction:
 - a. General Permit
 - b. Permit Coverage Letter
 - c. Stormwater Pollution Prevention Plan (SWPPP)
 - d. Site Log Book
 - e. Erosivity Waiver (if applicable)
2. The Permittee must address written requests for plans and records listed above (Special Condition S5.G.1) as follows:
 - a. The Permittee must provide a copy of plans and records to Ecology within 14 days of receipt of a written request from Ecology.
 - b. The Permittee must provide a copy of plans and records to the public when requested in writing. Upon receiving a written request from the public for the Permittee's plans and records, the Permittee must either:
 - i. Provide a copy of the plans and records to the requester within 14 days of a receipt of the written request; *or*
 - ii. Notify the requester within 10 days of receipt of the written request of the location and times within normal business hours when the plans and records may be viewed; and provide access to the plans and records within 14 days of receipt of the written request; *or*

Within 14 days of receipt of the written request, the Permittee may submit a copy of the plans and records to Ecology for viewing and/or copying by the requester at an Ecology office, or a mutually agreed location. If plans and records are viewed and/or copied at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which a reasonable fee may be charged. The Permittee must notify the requester within 10 days of receipt of the request where the plans and records may be viewed and/or copied.

S6. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for stormwater discharges covered under this permit are established by Chapter 173-224 WAC. Ecology continues to assess permit fees until the permit is terminated in accordance with Special Condition S10 or revoked in accordance with General Condition G5.

S7. SOLID AND LIQUID WASTE DISPOSAL

The Permittee must handle and dispose of solid and liquid wastes generated by construction activity, such as demolition debris, construction materials, contaminated materials, and waste materials from maintenance activities, including liquids and solids from cleaning catch basins and other stormwater facilities, in accordance with:

- A.** Special Condition S3, Compliance with Standards.
- B.** WAC 173-216-110.
- C.** Other applicable regulations.

S8. DISCHARGES TO 303(d) OR TMDL WATERBODIES

A. Sampling and Numeric Effluent Limits For Certain Discharges to 303(d)-Listed Water Bodies

1. Permittees who discharge to segments of water bodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorus, must conduct water quality sampling according to the requirements of this section, and Special Conditions S4.C.2.b-f and S4.C.3.b-d, and must comply with the applicable numeric effluent limitations in S8.C and S8.D.
2. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current listing by Ecology of impaired waters (Category 5) that exists on January 1, 2021, or the date when the operator's complete permit application is received by Ecology, whichever is later.

B. Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters

Construction sites that discharge to a TMDL or 303(d)-listed waterbody are not eligible for coverage under this permit *unless* the operator:

1. Prevents exposing stormwater to pollutants for which the waterbody is impaired, and retains documentation in the SWPPP that details procedures taken to prevent exposure on site; *or*
2. Documents that the pollutants for which the waterbody is impaired are not present at the site, and retains documentation of this finding within the SWPPP; *or*
3. Provides Ecology with data indicating the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retains such data on site with the SWPPP. The operator must provide data and other technical information to Ecology that sufficiently demonstrate:
 - a. For discharges to waters without an EPA-approved or -established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; *or*
 - b. For discharges to waters with an EPA-approved or -established TMDL, that there is sufficient remaining wasteload allocation in the TMDL to allow construction stormwater discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

Operators of construction sites are eligible for coverage under this permit only after Ecology makes an affirmative determination that the *discharge will not cause or contribute to the existing impairment or exceed the TMDL.*

C. Sampling and Numeric Effluent Limits for Discharges to Water Bodies on the 303(d) List for Turbidity, Fine Sediment, or Phosphorus

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus must conduct turbidity sampling in accordance with Special Condition S4.C.2 and comply with either of the numeric effluent limits noted in Table 5 below.
2. As an alternative to the 25 NTUs effluent limit noted in Table 5 below (applied at the point where stormwater [or authorized non-stormwater] is discharged off-site), Permittees may choose to comply with the surface water quality standard for turbidity. The standard is: no more than 5 NTUs over background turbidity when the background turbidity is 50 NTUs or less, or no more than a 10% increase in turbidity when the background turbidity is more than 50 NTUs. In order to use the water quality standard requirement, the sampling must take place at the following locations:
 - a. Background turbidity in the 303(d)-listed receiving water immediately upstream (upgradient) or outside the area of influence of the discharge.
 - b. Turbidity at the point of discharge into the 303(d)-listed receiving water, inside the area of influence of the discharge.
3. Discharges that exceed the numeric effluent limit for turbidity constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

Table 5 Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed Waters

Parameter Identified in 303(d) listing	Parameter Sampled	Unit	Analytical Method	Sampling Frequency	Numeric Effluent Limit ¹
<ul style="list-style-type: none"> • Turbidity • Fine Sediment • Phosphorus 	Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs, at the point where stormwater is discharged from the site; <i>OR</i> In compliance with the surface water quality standard for turbidity (S8.C.2.a)

¹ Permittees subject to a numeric effluent limit for turbidity may, at their discretion, choose either numeric effluent limitation based on site-specific considerations including, but not limited to, safety, access and convenience.

D. Discharges to Water Bodies on the 303(d) List for High pH

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for high pH must conduct pH sampling in accordance with the table below, and comply with the numeric effluent limit of pH 6.5 to 8.5 su (Table 6).

Table 6 pH Sampling and Limits for 303(d)-Listed Waters

Parameter identified in 303(d) listing	Parameter Sampled/Units	Analytical Method	Sampling Frequency	Numeric Effluent Limit
High pH	pH /Standard Units	pH meter	Weekly, if discharging	In the range of 6.5 – 8.5 su

2. At the Permittee’s discretion, compliance with the limit shall be assessed at one of the following locations:
 - a. Directly in the 303(d)-listed waterbody segment, inside the immediate area of influence of the discharge; *or*
 - b. Alternatively, the Permittee may measure pH at the point where the discharge leaves the construction site, rather than in the receiving water.
3. Discharges that exceed the numeric effluent limit for pH (outside the range of 6.5 – 8.5 su) constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

E. Sampling and Limits for Sites Discharging to Waters Covered by a TMDL or another Pollution Control Plan

1. Discharges to a waterbody that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus must be consistent with the TMDL. Refer to <http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html> for more information on TMDLs.
 - a. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges must be consistent with any specific waste load allocations or requirements established by the applicable TMDL.
 - i. The Permittee must sample discharges weekly, unless otherwise specified by the TMDL, to evaluate compliance with the specific waste load allocations or requirements.
 - ii. Analytical methods used to meet the monitoring requirements must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.
 - iii. Turbidity and pH methods need not be accredited or registered unless conducted at a laboratory which must otherwise be accredited or registered.
 - b. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but has not identified specific requirements, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - c. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - d. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

S9. STORMWATER POLLUTION PREVENTION PLAN

The Permittee must prepare and properly implement an adequate Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with the requirements of this permit beginning with initial soil disturbance and until final stabilization.

A. The Permittee's SWPPP must meet the following objectives:

1. To identify best management practices (BMPs) which prevent erosion and sedimentation, and to reduce, eliminate or prevent stormwater contamination and water pollution from construction activity.
2. To prevent violations of surface water quality, groundwater quality, or sediment management standards.
3. To control peak volumetric flow rates and velocities of stormwater discharges.

B. General Requirements

1. The SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:
 - a. Information about existing site conditions (topography, drainage, soils, vegetation, etc.).
 - b. Potential erosion problem areas.
 - c. The 13 elements of a SWPPP in Special Condition S9.D.1-13, including BMPs used to address each element.
 - d. Construction phasing/sequence and general BMP implementation schedule.
 - e. The actions to be taken if BMP performance goals are not achieved—for example, a contingency plan for additional treatment and/or storage of stormwater that would violate the water quality standards if discharged.
 - f. Engineering calculations for ponds, treatment systems, and any other designed structures. When a treatment system requires engineering calculations, these calculations must be included in the SWPPP. Engineering calculations do not need to be included in the SWPPP for treatment systems that do not require such calculations.
2. The Permittee must modify the SWPPP if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The Permittee must then:
 - a. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the inspection or investigation.
 - b. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than 10 days from the inspection or investigation. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
 - c. Document BMP implementation and maintenance in the site log book.

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

C. Stormwater Best Management Practices (BMPs)

BMPs must be consistent with:

1. *Stormwater Management Manual for Western Washington* (most current approved edition at the time this permit was issued), for sites west of the crest of the Cascade Mountains; *or*

2. *Stormwater Management Manual for Eastern Washington* (most current approved edition at the time this permit was issued), for sites east of the crest of the Cascade Mountains; *or*
3. Revisions to the manuals listed in Special Condition S9.C.1 & 2, or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230; *or*
4. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable stormwater management manuals, including:
 - a. The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.
 - b. An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

D. SWPPP – Narrative Contents and Requirements

The Permittee must include each of the 13 elements below in Special Condition S9.D.1-13 in the narrative of the SWPPP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the SWPPP.

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.
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 roads.
 - c. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto 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 Special Condition S9.D.2.d.
 - f. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.

3. Control Flow Rates

- a. Protect properties and waterways downstream of construction 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 Special Condition S9.D.3.a, construct stormwater infiltration or detention BMPs as one of the first steps in grading. Assure that detention BMPs function properly before constructing site improvements (for example, impervious surfaces).
- c. If permanent infiltration ponds are used for flow control during construction, protect these facilities from sedimentation during the construction phase.

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:

- 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 meet the flow control performance standard of Special Condition S9.D.3.a.
- 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.

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 less 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.
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.
 - d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
 - e. Place check dams at regular intervals within constructed channels that are cut down a slope.
- 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).
- 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.

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. Minimize storage of hazardous materials on-site. Safety Data Sheets (SDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers. 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 of 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. (Also refer to the definition for "concrete wastewater" in Appendix A – Definitions.)
- 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 onto the ground, or into storm drains, open ditches, streets, or streams. Washout of small concrete handling equipment may be disposed of 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. At no time shall concrete be washed off into the footprint of an area where an infiltration BMP will be installed.

- i. Obtain written approval from Ecology before using any chemical treatment, with the exception of 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).

10. Control Dewatering

- a. Permittees must discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, in conjunction with BMPs to reduce sedimentation 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 Special Condition S9.D.8, 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 (See S9.D.9.i, regarding chemical treatment written approval).
 - 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.
- d. Permittees must handle highly turbid or contaminated dewatering water separately from stormwater.

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.

12. Manage the Project

- a. Phase development projects to the maximum degree practicable and take into account seasonal work limitations.
- b. Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with Special Condition S4.
- c. Maintain, update, and implement the SWPPP in accordance with Special Conditions S3, S4, and S9.

13. Protect Low Impact Development (LID) BMPs

The primary purpose of on-site LID Stormwater Management is to reduce the disruption of the natural site hydrology through infiltration. LID BMPs are permanent facilities.

- a. Permittees must protect all LID BMPs (including, but not limited to, 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 BMPs 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.
- b. Permittees must maintain the infiltration capabilities of LID BMPs by protecting against compaction by construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.
- c. 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 or base materials.
- d. 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.
- e. Permittees must keep all heavy equipment off existing soils under LID BMPs that have been excavated to final grade to retain the infiltration rate of the soils.

E. SWPPP – Map Contents and Requirements

The Permittee's SWPPP must also include a vicinity map or general location map (for example, a USGS quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

The SWPPP must also include a legible site map (or maps) showing the entire construction site. The following features must be identified, unless not applicable due to site conditions.

- 1. The direction of north, property lines, and existing structures and roads.
- 2. Cut and fill slopes indicating the top and bottom of slope catch lines.

3. Approximate slopes, contours, and direction of stormwater flow before and after major grading activities.
4. Areas of soil disturbance and areas that will not be disturbed.
5. Locations of structural and nonstructural controls (BMPs) identified in the SWPPP.
6. Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas.
7. Locations of all surface water bodies, including wetlands.
8. Locations where stormwater or non-stormwater discharges off-site and/or to a surface waterbody, including wetlands.
9. Location of water quality sampling station(s), if sampling is required by state or local permitting authority.
10. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.
11. Location or proposed location of LID facilities.

S10. NOTICE OF TERMINATION

Partial terminations of permit coverage are not authorized.

- A.** The site is eligible for termination of coverage when it has met any of the following conditions:
 1. The site has undergone final stabilization, the Permittee has removed all temporary BMPs (except biodegradable BMPs clearly manufactured with the intention for the material to be left in place and not interfere with maintenance or land use), and all stormwater discharges associated with construction activity have been eliminated; *or*
 2. All portions of the site that have not undergone final stabilization per Special Condition S10.A.1 have been sold and/or transferred (per Special Condition S2.A), and the Permittee no longer has operational control of the construction activity; *or*
 3. For residential construction only, the Permittee has completed temporary stabilization and the homeowners have taken possession of the residences.
- B.** When the site is eligible for termination, the Permittee must submit a complete and accurate Notice of Termination (NOT) form, signed in accordance with General Condition G2, to:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

When an electronic termination form is available, the Permittee may choose to submit a complete and accurate Notice of Termination (NOT) form through the Water Quality Permitting Portal rather than mailing a hardcopy as noted above.

The termination is effective on the 31st calendar day following the date Ecology receives a complete NOT form, unless Ecology notifies the Permittee that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A.

Permittees are required to comply with all conditions and effluent limitations in the permit until the permit has been terminated.

Permittees transferring the property to a new property owner or operator/Permittee are required to complete and submit the Notice of Transfer form to Ecology, but are not required to submit a Notice of Termination form for this type of transaction.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant more frequent than or at a level in excess of that identified and authorized by the general permit must constitute a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

- A.** All permit applications must bear a certification of correctness to be signed:
1. In the case of corporations, by a responsible corporate officer.
 2. In the case of a partnership, by a general partner of a partnership.
 3. In the case of sole proprietorship, by the proprietor.
 4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.
- B.** All reports required by this permit and other information requested by Ecology (including NOIs, NOTs, and Transfer of Coverage forms) must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described above and submitted to Ecology.
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.
- C.** Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D.** Certification. Any person signing a document under this section must make the following certification:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A.** To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.
- B.** To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
- C.** To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D.** To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

- A.** When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.
- B.** When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.
- C.** When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or
- D.** When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the Director may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

- A.** Violation of any term or condition of this permit.
- B.** Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.
- C.** A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- D.** Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- E.** A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.
- F.** Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.

- G. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

The Director may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the construction activity or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit. The Permittee must reapply using the electronic application form (NOI) available on Ecology's website. Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

G9. REMOVED SUBSTANCE

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to the final effluent stream for discharge to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G11. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G14. UPSET

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in Special Condition S5.F, and; 4) the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G15. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G16. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G17. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G18. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

G19. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, give notice to Ecology of planned physical alterations, modifications or additions to the permitted construction activity. The Permittee should be aware that, depending on the nature and size of the changes to the original permit, a new public notice and other permit process requirements may be required. Changes in activities that require reporting to Ecology include those that will result in:

- A.** The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
- B.** A significant change in the nature or an increase in quantity of pollutants discharged, including but not limited to: a 20% or greater increase in acreage disturbed by construction activity.
- C.** A change in or addition of surface water(s) receiving stormwater or non-stormwater from the construction activity.
- D.** A change in the construction plans and/or activity that affects the Permittee's monitoring requirements in Special Condition S4.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G20. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of

operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G22. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT

Any discharger authorized by this permit may request to be excluded from coverage under the general permit by applying for an individual permit. The discharger must submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons will fully document how an individual permit will apply to the applicant in a way that the general permit cannot. Ecology may make specific requests for information to support the request. The Director will either issue an individual permit or deny the request with a statement explaining the reason for the denial. When an individual permit is issued to a discharger otherwise subject to the construction stormwater general permit, the applicability of the construction stormwater general permit to that Permittee is automatically terminated on the effective date of the individual permit.

G23. APPEALS

- A.** The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B.** The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.
- C.** The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G24. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G25. BYPASS PROHIBITED

A. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited for stormwater events below the design criteria for stormwater management. Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, 3 or 4) is applicable.

- 1. Bypass of stormwater is consistent with the design criteria and part of an approved management practice in the applicable stormwater management manual.
- 2. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health.

3. Bypass of stormwater is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
 - b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.
 - c. Ecology is properly notified of the bypass as required in Special Condition S5.F of this permit.
4. A planned action that would cause bypass of stormwater and has the potential to result in noncompliance of this permit during a storm event.

The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

- a. A description of the bypass and its cause
 - b. An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - c. A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - d. The minimum and maximum duration of bypass under each alternative.
 - e. A recommendation as to the preferred alternative for conducting the bypass.
 - f. The projected date of bypass initiation.
 - g. A statement of compliance with SEPA.
 - h. A request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated.
 - i. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
5. For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above must be considered during

preparation of the Stormwater Pollution Prevention Plan (SWPPP) and must be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following before issuing an administrative order for this type bypass:

- a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve, conditionally approve, or deny the request. The public must be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under RCW 90.48.120.

B. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

APPENDIX A – DEFINITIONS

AKART is an acronym for “All Known, Available, and Reasonable methods of prevention, control, and Treatment.” AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which was completed and approved by EPA before January 1, 2021, or before the date the operator’s complete permit application is received by Ecology, whichever is later. TMDLs completed after a complete permit application is received by Ecology become applicable to the Permittee only if they are imposed through an administrative order by Ecology, or through a modification of permit coverage.

Applicant means an *operator* seeking coverage under this permit.

Benchmark means a pollutant concentration used as a permit threshold, below which a pollutant is considered unlikely to cause a water quality violation, and above which it may. When pollutant concentrations exceed benchmarks, corrective action requirements take effect. Benchmark values are not water quality standards and are not numeric effluent limitations; they are indicator values.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer means an area designated by a local jurisdiction that is contiguous to and intended to protect a sensitive area.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Calendar Day A period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

Calendar Week (same as **Week**) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

Certified Erosion and Sediment Control Lead (CESCL) means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (See BMP C160 in the SWMM).

Chemical Treatment means the addition of chemicals to stormwater and/or authorized non-stormwater prior to filtration and discharge to surface waters.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Combined Sewer means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Common Plan of Development or Sale means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; 3) projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and 4) linear projects such as roads, pipelines, or utilities. If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

Composite Sample means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots).

Concrete Wastewater means any water used in the production, pouring and/or clean-up of concrete or concrete products, and any water used to cut, grind, wash, or otherwise modify concrete or concrete products. Examples include water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing). When stormwater comingles with concrete wastewater, the resulting water is considered concrete wastewater and must be managed to prevent discharge to waters of the State, including groundwater.

Construction Activity means land disturbing operations including clearing, grading or excavation which disturbs the surface of the land (including off-site disturbance acreage related to construction-support activity). Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, site preparation, soil compaction, movement and stockpiling of topsoils, and demolition activity.

Construction Support Activity means off-site acreage that will be disturbed as a direct result of the construction project and will discharge stormwater. For example, off-site equipment staging yards, material storage areas, borrow areas, and parking areas.

Contaminant means any hazardous substance that does not occur naturally or occurs at greater than natural background levels. See definition of "hazardous substance" and WAC 173-340-200.

Contaminated soil means soil which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Contaminated groundwater means groundwater which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Demonstrably Equivalent means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:

1. The method and reasons for choosing the stormwater BMPs selected.
2. The pollutant removal performance expected from the BMPs selected.

3. The technical basis supporting the performance claims for the BMPs selected, including any available data concerning field performance of the BMPs selected.
4. An assessment of how the selected BMPs will comply with state water quality standards.
5. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment (AKART).

Department means the Washington State Department of Ecology.

Detention means the temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.

Dewatering means the act of pumping groundwater or stormwater away from an active construction site.

Director means the Director of the Washington State Department of Ecology or his/her authorized representative.

Discharger means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration or surface waters as may be present.

Ecology means the Washington State Department of Ecology.

Engineered Soils means the use of soil amendments including, but not limited, to Portland cement treated base (CTB), cement kiln dust (CKD), or fly ash to achieve certain desirable soil characteristics.

Equivalent BMPs means operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from the SWMM.

Erosion means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and Sediment Control BMPs means BMPs intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.

Federal Operator is an entity that meets the definition of "Operator" in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

Final Stabilization (same as **fully stabilized** or **full stabilization**) means the completion of all soil disturbing activities at the site and the establishment of permanent vegetative cover, or equivalent permanent stabilization measures (such as pavement, riprap, gabions, or geotextiles) which will prevent erosion. See the applicable Stormwater Management Manual for more information on vegetative cover expectations and equivalent permanent stabilization measures.

Groundwater means water in a saturated zone or stratum beneath the land surface or a surface waterbody.

Hazardous Substance means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous sub-stance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment. The term hazardous substance does not include any of the following when contained in an underground storage tank from which there is not a release: crude oil or any fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

Injection Well means a well that is used for the subsurface emplacement of fluids. (See **Well**.)

Jurisdiction means a political unit such as a city, town or county; incorporated for local self-government.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Notice of Intent (NOI) means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

Notice of Termination (NOT) means a request for termination of coverage under this general permit as specified by Special Condition S10 of this permit.

Operator means any party associated with a construction project that meets either of the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

Permittee means individual or entity that receives notice of coverage under this general permit.

pH means a liquid's measure of acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

pH Monitoring Period means the time period in which the pH of stormwater runoff from a site must be tested a minimum of once every seven days to determine if stormwater pH is between 6.5 and 8.5.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See the Fact Sheet for further explanation)

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Process Wastewater means any non-stormwater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. If stormwater commingles with process wastewater, the commingled water is considered process wastewater.

Receiving Water means the waterbody at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the waterbody to which the storm system discharges. Systems designed primarily for other purposes such as for groundwater drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Representative means a stormwater or wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate *composite sample*, or a flow proportionate sample. Ecology's Construction Stormwater Monitoring Manual provides guidance on representative sampling.

Responsible Corporate Officer for the purpose of signatory authority means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sanitary Sewer means a sewer which is designed to convey domestic wastewater.

Sediment means the fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation means the depositing or formation of sediment.

Sensitive Area means a waterbody, wetland, stream, aquifer recharge area, or channel migration zone.

SEPA (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Significant Amount means an amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a reasonable potential to cause a violation of surface or groundwater quality or sediment management standards.

Significant Concrete Work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project.

Significant Contributor of Pollutants means a facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

Site means the land or water area where any "facility or activity" is physically located or conducted.

Source Control BMPs means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

Stabilization means the application of appropriate BMPs to prevent the erosion of soils, such as, temporary and permanent seeding, vegetative covers, mulching and matting, plastic covering and sodding. See also the definition of Erosion and Sediment Control BMPs.

Storm Drain means any drain which drains directly into a *storm sewer system*, usually found along roadways or in parking lots.

Storm Sewer System means a means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater. This does not include systems which are part of a *combined sewer* or Publicly Owned Treatment Works (POTW), as defined at 40 CFR 122.2.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface waterbody, or a constructed infiltration facility.

Stormwater Management Manual (SWMM) or Manual means the technical Manual published by Ecology for use by local governments that contain descriptions of and design criteria for BMPs to prevent, control, or treat pollutants in stormwater.

Stormwater Pollution Prevention Plan (SWPPP) means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Temporary Stabilization means the exposed ground surface has been covered with appropriate materials to provide temporary stabilization of the surface from water or wind erosion. Materials include, but are not limited to, mulch, riprap, erosion control mats or blankets and temporary cover crops. Seeding alone is not considered stabilization. Temporary stabilization is not a substitute for the more permanent "final stabilization."

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the waterbody can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for reasonable variation in water quality.

Transfer of Coverage (TOC) means a request for transfer of coverage under this general permit as specified by Special Condition S2.A of this permit.

Treatment BMPs means BMPs that are intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

Transparency means a measurement of water clarity in centimeters (cm), using a 60 cm transparency tube. The transparency tube is used to estimate the relative clarity or transparency of water by noting the depth at which a black and white Secchi disc becomes visible when water is released from a valve in the bottom of the tube. A transparency tube is sometimes referred to as a "turbidity tube."

Turbidity means the clarity of water expressed as nephelometric turbidity units (NTUs) and measured with a calibrated turbidimeter.

Uncontaminated means free from any contaminant. See definition of "contaminant" and WAC 173-340-200.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste Load Allocation (WLA) means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2[h]).

Water-Only Based Shaft Drilling is a shaft drilling process that uses water only and no additives are involved in the drilling of shafts for construction of building, road, or bridge foundations.

Water Quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt

waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Well means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension. (See **Injection Well**.)

Wheel Wash Wastewater means any water used in, or resulting from the operation of, a tire bath or wheel wash (BMP C106: Wheel Wash), or other structure or practice that uses water to physically remove mud and debris from vehicles leaving a construction site and prevent track-out onto roads. When stormwater combines with wheel wash wastewater, the resulting water is considered wheel wash wastewater and must be managed according to Special Condition S9.D.9.

APPENDIX B – ACRONYMS

AKART	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
BMP	Best Management Practice
CESCL	Certified Erosion and Sediment Control Lead
CFR	Code of Federal Regulations
CKD	Cement Kiln Dust
cm	Centimeters
CPD	Common Plan of Development
CTB	Cement-Treated Base
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
ERTS	Environmental Report Tracking System
ESC	Erosion and Sediment Control
FR	Federal Register
LID	Low Impact Development
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SWMM	Stormwater Management Manual
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UIC	Underground Injection Control
USC	United States Code
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WQ	Water Quality
WWHM	Western Washington Hydrology Model

APPENDIX E

Geotechnical Report



Date: February 10, 2025
To: Brian Bierwagen, P.E.
Parametrix, Inc.
From: Jeffery Tucker, P.E.
William L. Nickels, P.E.
Subject: Geotechnical Investigation
Project: Garlock Road Delameter Creek Culvert Replacement
Project No.: 2191131



We have completed the requested geotechnical investigation for the above-referenced project. This memorandum includes a description of our work, a discussion of the site conditions, a summary of laboratory testing, and a discussion of engineering analyses. Recommendations for foundation design and construction are also provided.

Cowlitz County is the project owner and Parametrix is providing civil and structural engineering services for the culvert replacement. Foundation Engineering, Inc. (FE) was retained by Parametrix to complete a geotechnical investigation for the project and provide foundation recommendations for the replacement structure.

BACKGROUND

Cowlitz County plans to replace the existing 8-foot wide reinforced concrete box culvert (RCBC) where Delameter Creek passes under Garlock Road in Cowlitz County, Washington. A 55-foot-wide pre-cast concrete arch culvert supported on driven piles is proposed to replace the existing culvert. The site location is shown on Figure 1A (Appendix A).

LOCAL GEOLOGY AND FAULTING

Geologic mapping shows the site is underlain by the Cowlitz Formation consisting primarily of siltstone and sandstone with shale and minor interbedded basalt and volcanoclastic zones (Phillips, 1987). Site explorations encountered alluvial silt and sand over sandstone, consistent with the geologic mapping.

The USGS Quaternary Fault Mapping shows the nearest potentially active faults are the Portland Hills Fault and the Gales Creek Fault Zone located 40 miles south of the site. However, the primary contributor to the seismic hazard at this site is the Cascadia Subduction Zone, located 80 miles to the west.

FIELD EXPLORATION

We drilled two exploratory boreholes (BH-1 and BH-2) at the site on December 9, 2019, using a CME55 truck-mounted drill rig and mud-rotary drilling techniques. The approximate boring locations are shown on Figure 2A (Appendix A).

BH-1 was drilled to a depth of ± 50.4 feet and BH-2 was drilled to a depth of ± 45.4 feet. Soil samples were obtained at 2.5-foot intervals to a depth of ± 10 feet and at 5-foot intervals thereafter. Disturbed soil samples were obtained by driving a split-spoon sampler in conjunction with the Standard Penetration Test (SPT). The SPT provides an indication of the relative stiffness or density of the soil. A relatively undisturbed sample (SH-1-3) was obtained in BH-1 by pushing a thin-walled Shelby tube.

The borings were continuously logged during drilling. The final logs (Appendix B) were prepared based on a review of the field logs, the laboratory test results, and an examination of the soil and rock samples in our office.

SUBSURFACE CONDITIONS

A general discussion of the soil and rock encountered in the borings is provided below. More detailed descriptions are provided on the boring logs (Appendix B). All elevations are based on the topographic map provided by Parametrix (Figure 2A) and are approximate to the nearest ± 0.5 foot.

North Abutment (BH-1)

The paved surface at BH-1 lies at \pm El. 89.5. The pavement section consists of ± 5 inches of asphaltic concrete (AC) over a thin layer of dense gravel (base rock) to a depth of ± 9 inches.

The base rock is underlain by fill consisting of brown, soft to medium stiff sandy silt to ± 5 feet (\pm El. 84.5) that transitions to very loose silty sand to ± 8.8 feet (\pm El. 80.7). The fill is underlain by alluvium consisting predominately of silty sand and sandy silt extending to ± 30 feet (\pm El. 59.5), followed by medium dense silty sand to ± 35.5 feet (\pm El. 54.0), the approximate bedrock surface. At a depth of ± 20 feet (\pm El. 69.5), a ± 1.8 -foot thick piece of wood was encountered in the boring.

The alluvium is underlain by extremely weak to very weak (R0 to R1) sandstone (Cowlitz Formation) to ± 50.4 feet (\pm El. 39.1), the limits of the exploration.

South Abutment (BH-2)

The paved surface at BH-2 lies at \pm El. 93.0. The pavement section consists of ± 6 inches of asphaltic concrete (AC) over a thin layer of dense gravel (base rock) to a depth of ± 9 inches.

The base rock is underlain by fill consisting of brown loose silty sand extending to a depth of ± 7.5 feet (\pm El. 85.5). The fill is underlain by alluvium consisting predominately of loose silty sand extending to ± 25 feet (\pm El. 68.0), followed by soft sandy silt to ± 28 feet (\pm El. 65.0), the approximate bedrock surface. The alluvium is underlain by extremely weak to very weak (R0 to R1) sandstone (Cowlitz Formation) extending to ± 45.4 feet (\pm El. 47.6), the limits of the exploration.

Groundwater

Mud-rotary drilling precluded an accurate groundwater measurement in the borings at the time of drilling. However, we anticipate the groundwater levels at the site approximately follow the water level of the creek. The water level was ± 11.5 feet (\pm El. 78.5) below the surface of Garlock Road at the time of the explorations.

HYDRAULICS/SCOUR

A hydraulics and scour study report was not available at the time this memorandum was prepared. However, the proposed culvert will be supported on driven piles extending below the creek bed to the underlying bedrock. Therefore, scour is not expected to compromise the axial foundation support for the pile supported culvert. We understand scour countermeasures will be used to protect the pile cap, or the cap will extend below the scour elevation.

LABORATORY TESTING

The laboratory testing included moisture contents, percent fines, and bulk density tests to help classify the soils according to the Unified Soil Classification System (USCS) and estimate their overall engineering properties. Non-tested samples were visually classified in accordance with ASTM D2488-09a and ASTM D2487-11. The laboratory test results are summarized in Table 1C (Appendix C). The moisture contents are also shown on the boring logs.

Bulk density testing (ASTM D2937) was completed on Shelby tube sample SH-1-3 obtained in BH-1 from ± 7.5 to 9.5 feet. The test results indicate a dry density of ± 67.7 pcf. The bulk density test results are summarized in Table 2C (Appendix C).

SEISMIC ANALYSIS AND EVALUATION

Bedrock Acceleration and Site Response

We understand that seismic design is required for arch culverts with a span length greater than 20 feet. AASHTO (2017) recommends structures be designed for earthquake ground motions having a 1,000-year average return period. Response spectra for the site were established using the General Procedure in AASHTO (2017) Section 3.10, with modifications recommended in the 2018 WSDOT Bridge Design Manual (BDM).

The ground motion parameters, including peak ground accelerations (PGA), short period (0.2 second) spectral accelerations (S_s), and long period (1.0 second) spectral accelerations (S_1) on bedrock were calculated using the WSDOT developed Spectra tool from the BridgeLink BEToolbox application (Version 3.2.6.0). The Spectra tool is based on 2014 USGS seismic hazard maps (Peterson et al., 2014) and assumes a 7% probability of exceedance in 75 years.

Following the AASHTO General Procedure, the spectral accelerations on bedrock were scaled to the ground surface using F_{pga} , F_a , and F_v values appropriate for the Site Class. The Site Class accounts for the average subsurface conditions within 100 feet of the ground surface. As discussed in the following section, the site is underlain by thin zone of potentially liquefiable soil. Liquefiable soils are defined as Site Class E. However, development of a response spectrum for a Site Class E requires analysis that is not typically part of a county road culvert replacement project.

The development of liquefaction and corresponding softening of the soil typically reduces short-period spectral accelerations and increases long-period spectral accelerations. The new culvert will be a short-period structure. Therefore, we anticipate the highest seismic loads on the culvert will develop prior to the initiation of liquefaction. Based on the subsurface profile we believe a General Procedure response spectrum based on a Site Class D would provide a reasonable upper bound for the non-liquefied site response within the period of interest for the new culvert. Therefore, we prepared a General Procedure site response spectrum assuming a Site Class D. The scaling factors were selected based on 2018 WSDOT BDM Tables 3.4.2.3-1A, 3.4.2.3-1B, and 3.4.2.3.2. The response spectra and design parameters are shown on Figure 3A (Appendix A).

Liquefaction and Lateral Spread

Liquefiable soils typically consist of saturated, loose sand and non-plastic or low plasticity silt. The site is underlain by very loose to loose silty sand and soft to medium stiff sandy silt. These soils extend to \pm El. 59 in BH-1 and \pm El. 65 in BH-2.

We completed analyses using the Simplified Procedure (Youd et al., 2001) with recent updates by Idriss and Boulanger (2010) to evaluate the potential liquefaction hazard in the silty and sandy soils. We assumed a groundwater elevation of \pm El. 78.5 for the analysis based on our measurement of the water level of Delameter Creek at the time of drilling.

We used a deterministic approach to calculate ground motions for the liquefaction analysis. Magnitude and distance (M-R) pairs were selected using the interactive deaggregation tool on the USGS 2014 website assuming a 1,000-year return interval. The interactive deaggregation indicates the seismic hazard is dominated by a CSZ interface earthquake with a M_w between 8.8 and 9.1 at distances ranging from 50 to 90 miles from the site. Our analysis focused on a CSZ earthquake with a M_w of 9 at a distance of 50 miles from the site.

Our analysis indicates liquefaction, or cyclic softening is possible in the very loose to loose silty sand and soft sandy silt below the groundwater level. The potentially liquefiable soil extends to \pm El. 59 near the proposed the north culvert pile cap (BH-1) and to \pm El. 65 near the proposed south culvert pile cap (BH-2). Our calculations indicate liquefaction-induced settlement in the range of \pm 2 to 3.5 inches.

Liquefiable soil layers extend into the creek channel making the creek banks and approaches susceptible to lateral spread. Lateral spread is lateral soil movement associated with liquefaction. Lateral spread may occur during or immediately following a moderate to large magnitude earthquake. We used the empirical method of Youd et al. (2002) and the Newmark-based method of Bray et al. (2017) to estimate the displacement associated with lateral spread. The calculations indicate the creek banks and approaches could displace laterally several feet toward the creek.

Seismic Hazard Mitigation

Mitigation of the liquefaction and lateral spread hazards would require ground improvement to densify or reinforce the liquefiable soils. Ground improvement is expensive and is typically only completed for critical lifeline structures (e.g., major freeway bridges). Based on the site location and use of the structure, we believe ground improvement would not be practical.

The new culvert will be founded on deep foundations (i.e., driven piles or drilled shafts) extending to the underlying bedrock to maintain vertical support for the structure. Drilled shafts or driven piles could be used. Driven piles were selected because they provide high axial capacities and will likely be less costly and easier to install than drilled shafts. However, the resulting relatively short end bearing piles will not develop fixity and provide limited lateral resistance.

Potential liquefaction or soil softening beneath the pile caps and creek bed may result in reduced lateral support for the piles. Therefore, some lateral movement of the pile caps (toward the creek channel) may occur during the design CSZ earthquake. Seismic design should include racking of the arch culvert. Liquefaction and lateral spread may also result in settlement and slope instability of the approach embankments. Therefore, repairs to the approach embankment and culvert may be required after a strong seismic event.

FOUNDATION ANALYSIS AND DESIGN RECOMMENDATIONS

The culvert site is underlain with very loose to loose silty sand and soft to medium stiff sandy silt to \pm 30 feet below the road surface. Founding the proposed arch culvert on spread footings would require excavations for a large spread footing extending below the anticipated scour depth. Excavation and dewatering of a footing excavation to accommodate a spread footing is expected to require extensive shoring and dewatering. Therefore, based on the site conditions and the liquefaction hazard, driven piles were selected to support the culvert.

H-piles or pipe piles could be used. Pipe piles were selected because they provide symmetric resistance for seismic lateral loads and are likely to develop the required axial resistance with less embedment into the bedrock compared to an H-pile. Analysis and geotechnical design for driven pile foundations are provided in the following sections.

The back row of piles supporting the wingwalls will have uplift loads of 100 kips per pile. Predrilled and concreted-in-place piles were selected to resist the uplift load for the back row of piles.

Design Loads

Design loads for the piles were not available at the time this report was prepared. For this site, where relatively short piles will bear on rock, the maximum available pile resistance is based on limiting the pile stress to $0.9 \cdot f_y$ during driving.

Driven Pile Analysis and Design

Pile Type and Material Specifications.

We anticipate the maximum available pile resistance will be controlled by the driving stress of the end-bearing piles driven to the extremely weak to very weak sandstone. Grade 3 (45 ksi) is currently more common than Grade 2 and better suited to handle the anticipated high-driving stresses. Therefore, Grade 3 steel is recommended for design. The recommended pile properties are summarized in Table 1.

Table 1. Recommended Pile Properties

Property	Recommended Value
Pile Type	PP12.75x0.5
Steel Grade	ASTM A252 Grade 3
Minimum Yield Stress (F_y)	45 ksi
Area Steel (A_s)	19.3 in ²
Nom. Structural Resistance ($F_y \times A_s$)	869 kips
End Condition	Open-ended without cutting shoe

Downdrag. At least $\pm \frac{1}{2}$ inch of ground settlement around the pile is typically required to induce downdrag loads on deep foundations following their installation. The new approaches will approximately match the existing grades. Therefore, downdrag due to settlement associated with the placement of new approach fill is not a design concern.

Downdrag due to liquefaction-induced settlement is anticipated. Downdrag loads due to liquefaction were calculated assuming residual strengths in the liquefied/softened soil layers and static skin resistance in the soils above these layers. Our analysis indicates a potential downdrag load of ± 4 kips/pile at the north abutment and ± 3 kips/pile at the south abutment.

The piles will attain most of their axial resistance in end-bearing on bedrock. The bedrock has low compressibility and is anticipated to provide end-bearing resistance exceeding the combination of bridge foundation loads and any potential downdrag. Pile settlement due to downdrag is expected to be limited to the elastic compression of the pile section. Therefore, potential liquefaction downdrag loads are not expected to significantly impact the axial pile resistance or deflection.

Nominal and Factored Axial Resistances. For relatively short end-bearing piles, the maximum available resistance is limited by the driving stress. Therefore, we calculated the maximum available driving resistance (R_{ult}) based on limiting the driving stress to $0.9 \cdot f_y$. We completed a Wave Equation analysis using the computer software WEAP 2010 to assess the maximum available nominal axial resistance for a PP12.75x0.5 pile, without overstressing the pile. Analysis was completed assuming the piles would be driven open-ended with a diesel single-acting pile hammer with a rated energy of ± 22 -kip feet. The analysis indicated that a hammer energy of up to ± 22 -kip feet could be used to drive the piles to a nominal resistance of up to ± 440 kips without overstressing the pile.

The maximum available factored resistance was based on an AASHTO LRFD resistance factor (ϕ) of 0.4, assuming WSDOT Standard Specification 6-05.3(12) - Determination of Bearing Values, will be used to establish the final driving criteria.

We anticipate the available pile resistance for the open-ended piles will develop soon after the pile encounters bedrock. The maximum available nominal and factored pile resistance and recommended minimum and estimated tip elevations are presented in Table 2.

Table 2. Design Parameters for PP12.75x0.5 Piles

Pile Resistance	North Abutment	South Abutment
Maximum Available Nominal Axial Resistance	440 kips	
Maximum Available Factored Axial Resistance ⁽¹⁾	176 kips	
Nominal Uplift Resistance ⁽²⁾	32 kips	11 kips
Pile Tip Elev. and Est. Length	North Abutment	South Abutment
Pile Cap Base El.	± El. 73.5	± El. 73.5
Estimated Cut Off El.	± El. 75	± El. 75
Minimum Pile Tip El.	± El. 54	± El. 65
Estimated Tip El.	± El. 53	± El. 64
Estimated Pile Length ⁽³⁾	± 22 feet	± 11 feet

- (1) Factored axial resistance based on an LRFD factor of 0.4 for pile resistance assuming 6-05.3(12) - Determination of Bearing Values is used to establish the required the driving resistance.
- (2) Nominal uplift resistance assumes the piles are driven to the minimum tip elevation and are based on skin friction only.
- (3) Recommended pile length is based on the average cut-off and estimated tip elevation. Additional length is required for stick up or driving below the estimated tip elevations.

Nominal Uplift Resistance. The nominal uplift resistance in Table 2 was calculated assuming uplift forces would be resisted by skin friction between the bottom of the pile cap and the minimum tip elevation. An LRFD factor of 0.8 should be used for extreme event uplift and an LRFD factor of 0.3 should be used for long-term uplift. Uplift resistance during a strong earthquake event should be assumed to be less than those presented in Table 2 due to liquefaction and loss of support of the soil surrounding the piles.

Pile Settlement. The pile tips will be seated into the extremely weak to very weak sandstone. These materials have low compressibility characteristics. Therefore, pile settlement is expected to be less than ± ½ inch.

Lateral Pile Analysis. Lateral loads were not available at the time this report was prepared. The recommended soil and rock parameters for LPILE analyses under non-liquified soil conditions are provided in Table 3 and Table 4. We should be contacted for additional parameters if analysis of liquified conditions is required. Reduction factors for group effects are provided in Table 5 for variable pile spacing.

Table 3. Recommended LPILE Soil Parameters – North Abutment

Depth (ft)	Elev. (ft)	Material Description	p-y Criteria	γ' (pcf)	ϕ' (°)	k (pci)
0	73.5	Medium stiff to stiff sandy SILT, some clay (alluvium)	SAND (Reese)	42.6	30	20
14	59.5			42.6	30	20
14	59.5	Medium dense silty SAND, trace gravel	SAND (Reese)	52.6	40	60
19.5	54			52.6	40	60
19.5	54	Extremely weak to very weak SANDSTONE (Cowlitz Formation)	SAND (Reese)	62.6	42	125
34.4	39.1			62.6	42	125

Notes:

1. Subsurface profile interpreted based on conditions encountered in Boring BH-1.
2. Assumes groundwater table at \pm El. 78.5.

Table 4. Recommended LPILE Soil Parameters – South Abutment

Depth (ft)	Elev. (ft)	Material Description	p-y Criteria	γ' (pcf)	ϕ' (°)	k (pci)
0	73.5	Loose silty SAND to Soft sandy SILT	SAND (Reese)	42.6	30	20
8.5	65			42.6	30	20
8.5	65	Extremely weak to very weak SANDSTONE (Cowlitz Formation)	SAND (Reese)	62.6	42	125
25.9	47.6			62.6	42	125

Notes:

1. Subsurface profile interpreted based on conditions encountered in Boring BH-2.
2. Assumes groundwater table at \pm El. 78.5.

Table 5. P-Multipliers for Lateral Loading as a Function of Pile Spacing

Pile Spacing	P-Multiplier 1st Row	P-Multiplier 2nd Row	P-Multiplier 3rd and Consecutive Rows
3d	0.8	0.4	0.3
> 5d	1.0	1.0	1.0

Notes:

1. P-multiplier values are based on Hannigan et al. 2006 (AASHTO, 2017).
2. d connotes the pile diameter.
3. Pile spacing is center-to-center.

Potential Obstructions. Boring BH-1 encountered ± 1.8 feet of wood within the alluvium, indicating the potential for buried logs and debris within the alluvium. The contractor should anticipate the potential for hard driving within the alluvium (\pm El. 85.5 to El. 54). Buried logs and other obstructions located near the surface may require removal by excavation. Preboring is not anticipated. Jetting is not recommended.

Set Period and Redriving. Each pile should be driven to the required driving resistance below the minimum tip elevation. The piles will be driven to extremely weak to very weak (R0 to R1) sandstone and are expected to develop the required axial resistance soon after encountering the sandstone surface. Therefore, a set period and redriving is not anticipated.

Tip Protection. The piles will be driven through mainly fine-grained soil and seated in extremely weak to very weak (R0 to R1) sandstone. Therefore, tip protection is not required.

Predrilled and Concreted-in-Place Piles

Wingwall Uplift Resistance. The wingwalls for the structure will be pile supported, and the back row of piles supporting the wingwalls will have uplift loads of 100 kips. Therefore, predrilled and concreted-in-place, PP12.75x0.5 piles were selected for the back row of the wingwall foundation. The predrilled and concreted piles will be embedded in the weak to very weak (R0 to R1) sandstone.

Pile Type and Material Specifications. PP12.75x0.5 piles were selected for foundation support of the proposed structure. To resist uplift for the back row of piles for the wingwalls, the piling will be set in predrilled holes and concreted in place using Class 3300 concrete. We recommend a minimum prebore diameter of 24 inches to provide a clearance of at least ± 5.5 inches around the outside of the pile.

Nominal and Factored Uplift Resistance. We evaluated the uplift pile resistance based on the side friction between the concrete backfill and the prebore sidewalls, treating the piles as side friction drilled shafts (FHWA, 2018).

The unconfined compressive strength of the extremely weak to very weak sandstone is estimated to range from 0.15 to 3.6 kips per square inch (ksi). We have conservatively assumed an unconfined uniaxial compressive strength for the sandstone of 0.21 ksi. The unit side resistance of shafts in weathered rock may be evaluated based on the uniaxial compressive strength of the rock. Calculations assuming a 24-inch diameter by 5-foot-deep rock socket indicate a nominal axial resistance of 250 kips. This value corresponds to a factored uplift resistance of ± 100 kips based on a resistance factor (ϕ) of 0.4 for uplift side resistance in rock.

EMBANKMENTS AND PAVEMENTS

Embankment Construction and Settlement

Fill will be placed and compacted above the new culvert. Immediate settlement is expected to occur as fill is placed and compacted. Therefore, we do not anticipate long-term consolidation settlement associated with the site grading.

Pavements

We understand the pavement section constructed over the new arch culvert will match the existing pavement section. Therefore, pavement design was not required.

EXCAVATIONS/SHORING/DEWATERING

Excavations for the pile cap will extend up to ± 15 feet below the current pavement grade and up to ± 8 feet below the creek bottom. It is the contractor's responsibility to maintain stable cut slopes and to provide the necessary shoring. Based on the boring logs, we anticipate the existing embankment fill and alluvium will be loose silty sand corresponding to an OSHA Type C soil.

Excavation for the pile cap is expected to extend below the groundwater elevation. Due to the anticipated loose silty sand and soft sandy silt, shoring and dewatering should be anticipated to provide a stable excavation below the groundwater elevation. The contractor should provide shoring design and a dewatering plan for approval by the engineer. One to two feet of stabilization rock is anticipated to stabilize the base of the excavation and facilitate dewatering.

ARCH CULVERT

We understand a 55-foot wide, precast concrete arch culvert is planned to replace the existing culvert. The culvert will be backfilled with Gravel Backfill 9-03.12(2) and the backfill will extend ± 37 feet out from sides, and up to the pavement section over the culvert. The backfill should be placed and compacted in lifts not exceeding 18 inches per WSDOT Standard Specification 2-03.3(14). Backfill must be placed on both sides of the structure such that the backfill on one side of the structure is not more than 2-foot above the backfill on the other side of the structure. Earth loads on the buried structure may be calculated based on a soil unit weight of 120 lb/ft³.

WSDOT typically requires a seismic analysis of arch culverts wider than 20 feet. Stiffness of the arch culvert relative to the soil backfill may be calculated based on a Poisson's ratio of 0.4 and an Elastic Modulus of 1,000 tons/ft² (tsf) for the backfill.

HEAD WALLS AND WING WALLS

Based on the conceptual drawings, we anticipate head walls and wing walls will retain the embankment at each end of the culvert.

Earth pressure loads for these walls were calculated based on the recommendations in the AASHTO Bridge Design Specifications (AASHTO, 2017). We assume Gravel Backfill for Walls (Section 9-03.12(2)) will be used in the zone behind the wall. A friction angle of 34 degrees and a unit weight of 120 lb/ft³ (pcf) were assumed for the backfill. Drained conditions were also assumed.

For non-deflecting walls, we calculated an at-rest earth pressure coefficient (k_o) of 0.44. The nominal lateral earth pressure on restrained walls may be calculated using an equivalent fluid density of 55 pcf. A wall deflection of $\pm 0.01 * H$ is required to mobilize active earth conditions. Therefore, for walls free to deflect, we calculated the lateral earth pressure based on an active earth pressure condition. We recommend calculating the static loads due to the wall backfill using an active earth pressure coefficient (k_a) of 0.28 and an equivalent fluid density of 34 pcf.

An equivalent soil surcharge height of 2 feet is recommended for wing walls and headwalls constructed parallel to traffic. For the active condition, we calculated a nominal uniform lateral pressure of 70 psf. For walls not allowed to deflect, we calculated a nominal uniform lateral pressure of 110 psf.

We completed analyses to provide seismic design parameters based on the WSDOT GDM. The WSDOT GDM requires walls that affect the performance or structural integrity of a bridge be designed for a peak horizontal acceleration corresponding to a 1,000-yr return period. For the 1,000-yr return period, we calculated a peak ground surface acceleration (A_s) of 0.38g based on the USGS PGA (on rock) of 0.30g and an AASHTO site factor (F_{pga}) of 1.30 for an AASHTO Site Class D soil profile. Mononobe-Okabe analysis was used to calculate a seismic active earth pressure coefficient (k_{ae}). For the analyses, the peak horizontal ground acceleration (k_h) and corresponding seismic lateral earth pressure coefficient (k_{ae}) depend upon the allowable lateral deflection of the wall during an earthquake. For a k_h of 0.17g corresponding to $0.5 * A_s$, we calculated ΔK_{ae} of 0.1. The seismic earth load on the retaining walls may be calculated using a uniform earth pressure of $0.5 \Delta K_{ae} * \gamma * H^2 / H$ (lb/ft²) where H is the wall height.

Table 7 summarizes the parameters and recommended earth pressures for the design of the head walls and wing walls.

Table 7. Lateral Earth Pressure Parameters for Abutment and Wing Wall Design

Parameter	Source	Value
At-Rest Earth Pressure Coefficient, k_o	$1 - \sin(\phi)$	0.44
Active Earth Pressure Coefficient, k_a	$\tan^2(45 - \phi/2)$	0.28
At-Rest Equivalent Fluid Density	$k_o * \text{backfill}$	53 pcf
Active Equivalent Fluid Density	$k_a * \text{backfill}$	34 pcf
Traffic Load Surcharge for Wing Wall (At-Rest)	$250 \text{ psf} * k_o$	110 psf
Traffic Load Surcharge for Wing Wall (Active)	$250 \text{ psf} * k_a$	70 psf
Seismic Pressure for 1,000-year event (assumes 1 to 2 inches of displacement)	Mononobe-Okabe	$6 * H \text{ psf}$

Notes:

- Lateral earth pressures are based on active and at-rest earth conditions.
- Traffic Surcharge is based on AASHTO (2017) Section 3.11.6.4.
- Seismic earth pressure assumes 1 to 2 inches of displacement is allowable for the 1000-yr design earthquake.

RECOMMENDATIONS

All specifications cited herein refer to Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction, 2020 (M41-10). It is also assumed these specifications would be referred to for general or specific items not addressed in this report.

The following recommendations assume the earthwork will be completed during the summer months when Delameter Creek is at its lowest level. Therefore, the earthwork should be restricted to the dry summer months from approximately June to October to reduce the dewatering effort and expedite material placement and compaction. We should be notified to provide wet weather recommendations if wet season construction is planned.

Foundation Design

1. Design the driven piles for a factored load no greater than 176 kips using the minimum tip elevations and parameters summarized in Table 2.
2. Design the headwall and wing walls using the earth pressure parameters summarized in Table 7. Provide wall drainage and backfill the walls with Gravel Backfill for Walls (Section 9-03.12(2)).

Materials

3. Backfill the arch culvert and wing walls with Gravel Backfill for Walls Section 9-03.12(2), or as approved by the engineer. We should be provided a sample of the proposed backfill material for approval prior to delivery to the site.

4. Embankment Fill for the embankment widening should consist of Gravel Backfill per Section 9-03.12(2), or as approved by the engineer. We should be provided a sample of the intended material or laboratory tests of texture (grain size distribution) for approval prior to delivery to the site.

Predrilled and Concreted-in-Place Piles

5. Drilling and installation of the wingwall uplift piles should be monitored by a design team representative during drilling and concrete placement. The predrill depth should provide a minimum 5-foot deep socket into the sandstone bedrock. The preboring will advance through fill and alluvium that includes soil susceptible to caving. Therefore, contractors should anticipate using temporary casing for these conditions.
6. Installation of the piles will require drilling into extremely weak to very weak (R0 to R1) sandstone bedrock. The drilling subcontractor is responsible for reviewing the boring logs and other available information to determine the most appropriate drilling equipment and tooling.
7. Preboring will extend below the creek level. We anticipate groundwater will infiltrate into the shafts during drilling. Therefore, "wet" construction methods should be anticipated, and the concrete will have to be tremie placed below the water. We recommend using Class 3300 concrete with 3/8-inch aggregate and an 8½-inch slump ($\pm 1 \frac{1}{2}$ inch) to allow the concrete to flow freely and fill the annulus between the pile and sidewalls of the prebore.
8. Contractors should capture water and cuttings displaced during concrete placement and dispose of it away from the site.
9. The predrilled, concreted-in-place piles will develop their uplift resistance through side friction. However, we recommend slough and loose material be removed from the base of the prebored excavations using the criteria for end-bearing drilled shafts specified in Section 6-19.3(3)D. This requires no more than 2 inches of loose or disturbed material be allowed to remain in the base of the prebored excavations prior to placing the piles and concrete.

Excavations/Shoring/Dewatering

10. The contractor should review the site conditions, boring logs, and ground water conditions to develop stable temporary excavation slopes, shoring, and dewatering plans. Based on the boring logs, we anticipate the existing embankment fill and alluvium will be loose silty sand corresponding to an OSHA Type C soil. The appropriate soil type and cut slopes will need be confirmed at the time of construction based on the soil strength and ground water conditions.
11. Dewatering will be required for excavations below the water table. It is the responsibility of the contractor to provide site dewatering plan for excavations prior to construction.

Embankment Construction

12. Complete the embankment construction in conformance with Section 2-03.3(14) (Embankment Construction). The engineer should observe the embankment foundation materials and instruct the contractor to remove areas of unsuitable or unstable materials as specified in Section 2-03.3(14)E (Unsuitable Foundation Excavation). New embankments shall be terraced into existing slopes that are steeper than 5:1(H:V).
13. Backfill within ± 4 feet of the culvert and wing walls with free-draining, Gravel Backfill (WSDOT, Section 9-03.12(2) Gravel Backfill for Walls). Compact all backfill within ± 4 feet of the wall in loose lifts not exceeding 6 inches. The backfill should be compacted to 90% relative compaction (ASTM D698).
14. Backfill the culvert to maintain even pressures on the side by maintaining a backfill height within 2 feet of the backfill height on the other side of the culvert.
15. Compact within ± 4 feet of the culvert and wing walls using only light hand-operated or walk-behind equipment (such as vibrating plate compactors). Do not use heavy rollers or hydraulic compactors mounted on excavators or backhoes in the wall zone since they may create excessive lateral earth pressures and damage the structure.
16. Compact non-moisture density-testable materials using the compaction requirements in Section 2-03.3(14) (Rock Embankment Construction).
17. Compact moisture density-testable materials used in 1 ½:1(H:V) embankment areas using Method B per Section 2-03.3(14)C (Compacting Earth Embankments). The moisture content of the materials compacted in the embankments shall not be more than 3 percent above optimum as described in the standard specifications.
18. Compact moisture density-testable materials used in embankment areas with 2:1(H:V) slope according to Method B in Section 2 03.3(14)C (Compacting Earth Embankments). The moisture content of the materials compacted in the embankments shall not be more than 3 percent above optimum as described in the standard specifications.
19. It is the responsibility of the contractor to maintain stable and safe temporary slopes during construction. Limit temporary excavations for the culvert replacement to 1(H):1(V) or flatter. The existing embankment primarily consists of silt and sand underlain by bedrock.

LIMITATIONS

Design Review/Construction Observation/Testing

We should be provided the opportunity to review all drawings and specifications that pertain to foundation construction. Arch culvert and wing wall foundation construction will require field confirmation of the subgrade conditions, pile driving resistances, pile tip elevations, and bedrock strength in the prebored excavations for the uplift foundations. We recommend those observations be provided by FE. Any geotechnical engineering judgement in the field should also be provided by an FE representative. Frequent field density tests should be run on all engineered fill, subgrade, and base rock. We recommend FE be retained to provide any necessary geotechnical consultation during construction.

Variation of Subsurface Conditions, Use of This Information, and Warranty

The analysis, conclusions, and recommendations contained herein assume the subsurface profiles encountered in the borings are representative of the site conditions. The above recommendations assume we will have the opportunity to review final drawings and verify the final design is consistent with the recommendations provided herein. Our recommendations also assume that we will be present during construction to confirm the assumed foundation conditions in the prebored excavations and the pile driving resistances. No changes to the enclosed recommendations should be made without our approval. We will assume no responsibility or liability for any engineering judgment, inspection, or testing performed by others.

This report was prepared for the exclusive use of Parametrix, Inc. and the Cowlitz County Department of Public Works for the Garlock Road Delameter Creek Culvert Replacement project in Cowlitz County, Washington. Information contained herein should not be used for other sites or for unanticipated construction without our written consent. This report is intended for planning and design purposes. Contractors using this information to estimate construction quantities or costs do so at their own risk. Our services do not include any survey or assessment of potential surface contamination or contamination of the soil or groundwater by hazardous or toxic materials. We assume those services, if needed, have been completed by others.

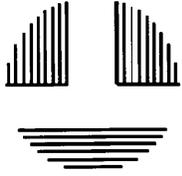
Our work was done in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

It has been a pleasure assisting you with this project. Please let us know if you have any questions or need further assistance.

REFERENCES

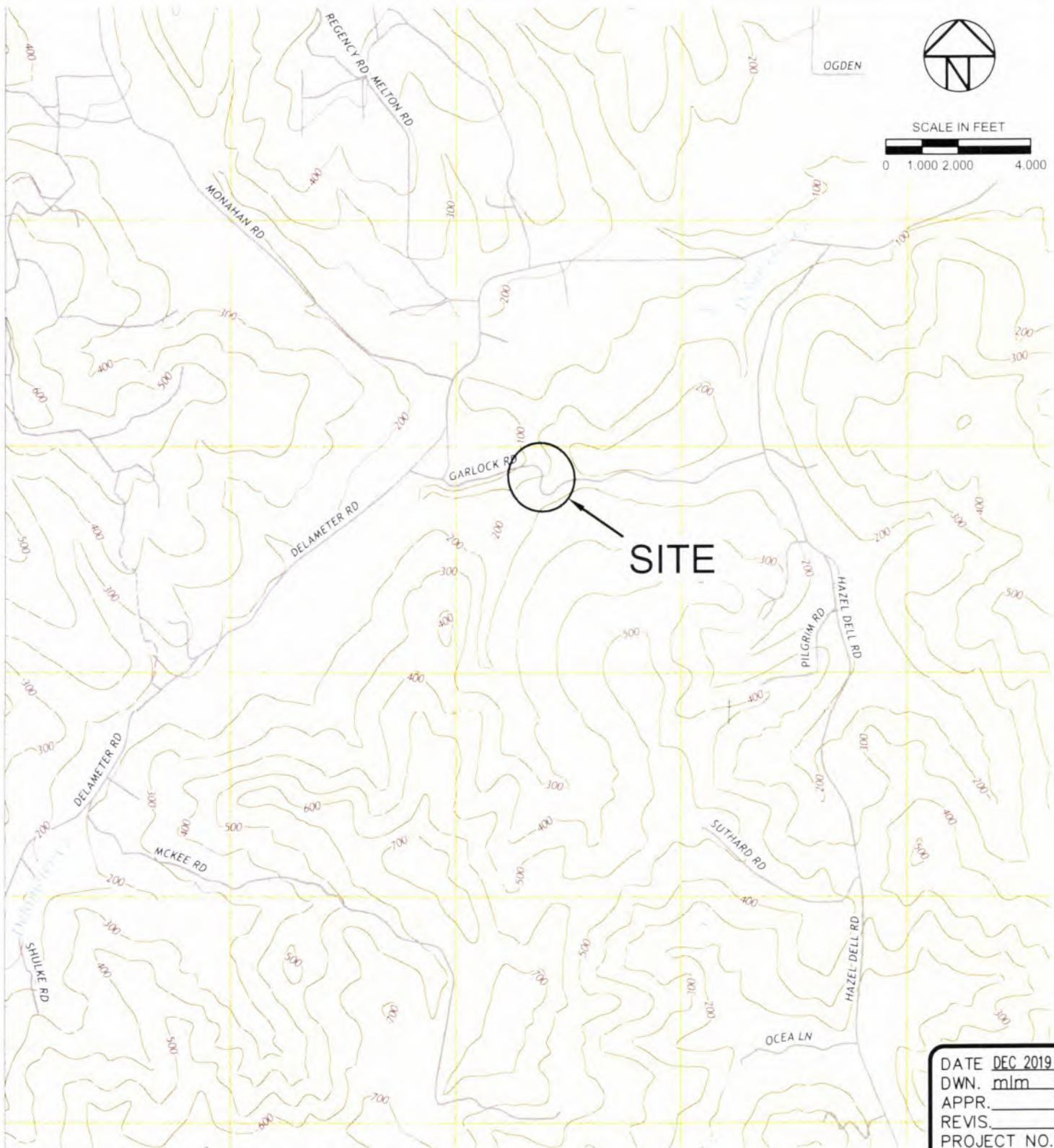
- AASHTO, 2017, *LRFD Bridge Design Specifications, Part I and Part II*, American Association of State Highway and Transportation Officials.
- ASTM, 2009, Standard Test Method for Description and Identification of Soils (Visual-Manual Procedure): American Society of Testing and Materials (ASTM) International, West Conshohocken, PA, ASTM Standard D2488, DOI: 10.1520/D2488-09A, 11 p., www.astm.org.
- ASTM, 2011, Standard Test Method for Classification of Soils for Engineering Purposes (Unified Soil Classification System, USCS): American Society of Testing and Materials (ASTM) International, West Conshohocken, PA, ASTM Standard D2487, DOI: 10.1520/D2487-11, 11 p., www.astm.org.
- Bray, J.D., Macedo, J., and Travasarou, 2017, Simplified Procedure for Estimating Seismic Slope Displacements for Subduction Zone Earthquakes, *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 144, No. 3, March 2018.
- Federal Highway Administration (FHWA), 2018, Drilled Shafts: Construction Procedures and Design Methods, Publication No. FHWA-NHI 18-024, September 2018.
- Idriss, I.M. and Boulanger, R.W., 2010, SPT-Based Liquefaction Triggering Procedures, Department of Civil and Environmental Engineering, College of Engineering, University of California at Davis, Report No. UCD/CGM-10/02, December 2010.
- Petersen, M. D., Moschetti, M. P., Powers, P. M., Mueller, C. S., Haller, K. M., Frankel, A. D., Zeng, Y., Rezaeian, S., Harmsen, S. C., Boyd, O. S., Field, N., Chen, R., Rukstales, K. S., Luco, N., Wheeler, R. L., Williams, R. A., and Olsen, A. H., 2014, Documentation for the 2014 Update of the United States National Seismic Hazard Maps: U. S. Geological Survey (USGS), Open-File Report 2014-1091, 243 p., website: <https://pubs.usgs.gov/of/2014/1091/>.
- Phillips, W.M., 1987, *Geologic map of the Mount St. Helens quadrangle*, Washington and Oregon, Washington Division of Geology and Earth Resources, Open File Report 87-4.
- USGS, 2014, *Geologic Hazards Science Center, 2014 Interactive Deaggregations: U.S. Geological Survey (USGS), 2% in 50 years return period, PGA spectral acceleration, latitude/longitude search*, accessed April 2018, web site: http://geohazards.usgs.gov/cfusion/c2002_search/.
- WSDOT, 2018, Geotechnical Design Manual. Washington Department of Transportation (WSDOT).
- WSDOT, 2020, *Standard Specifications for Road, Bridge, and Municipal Construction*. Washington Department of Transportation (WSDOT).

Youd, T.L.; Idriss, I.M.; Andrus, R.D.; Arango, I.; Castro, G.; Christian, J.T.; Dobry, R.; Finn, W.D.; Harder, L.; Hynes, M.E.; Ishihara, K.; Koester, J.P.; Liao, S.S.C.; Marcuson, W.F.; Martin, G.R.; Mitchell, J.K.; Moriwaki, Y.; Power, M.S.; Robertson, P.K.; Seed, R.B. and Stokoe, K.H., 2001, *Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils*, ASCE Journal of Geotechnical and Geoenvironmental Engineering, Vol. 127, No. 10, pp. 817-833.



Appendix A

Figures



Note: Base map obtained from the USGS website.

DATE DEC 2019
 DWN. mlm
 APPR. _____
 REVIS. _____
 PROJECT NO. _____
 2191131

FOUNDATION ENGINEERING INC.
 PROFESSIONAL GEOTECHNICAL SERVICES
 7857 SW CIRRUS DRIVE, BLDG 24
 BEAVERTON, OR 97008
 BUS. (503) 643-1541

VICINITY MAP
 GARLOCK ROAD DELAMETER CREEK
 CULVERT REPLACEMENT
 COWLITZ COUNTY, WASHINGTON

FIGURE NO.
1A

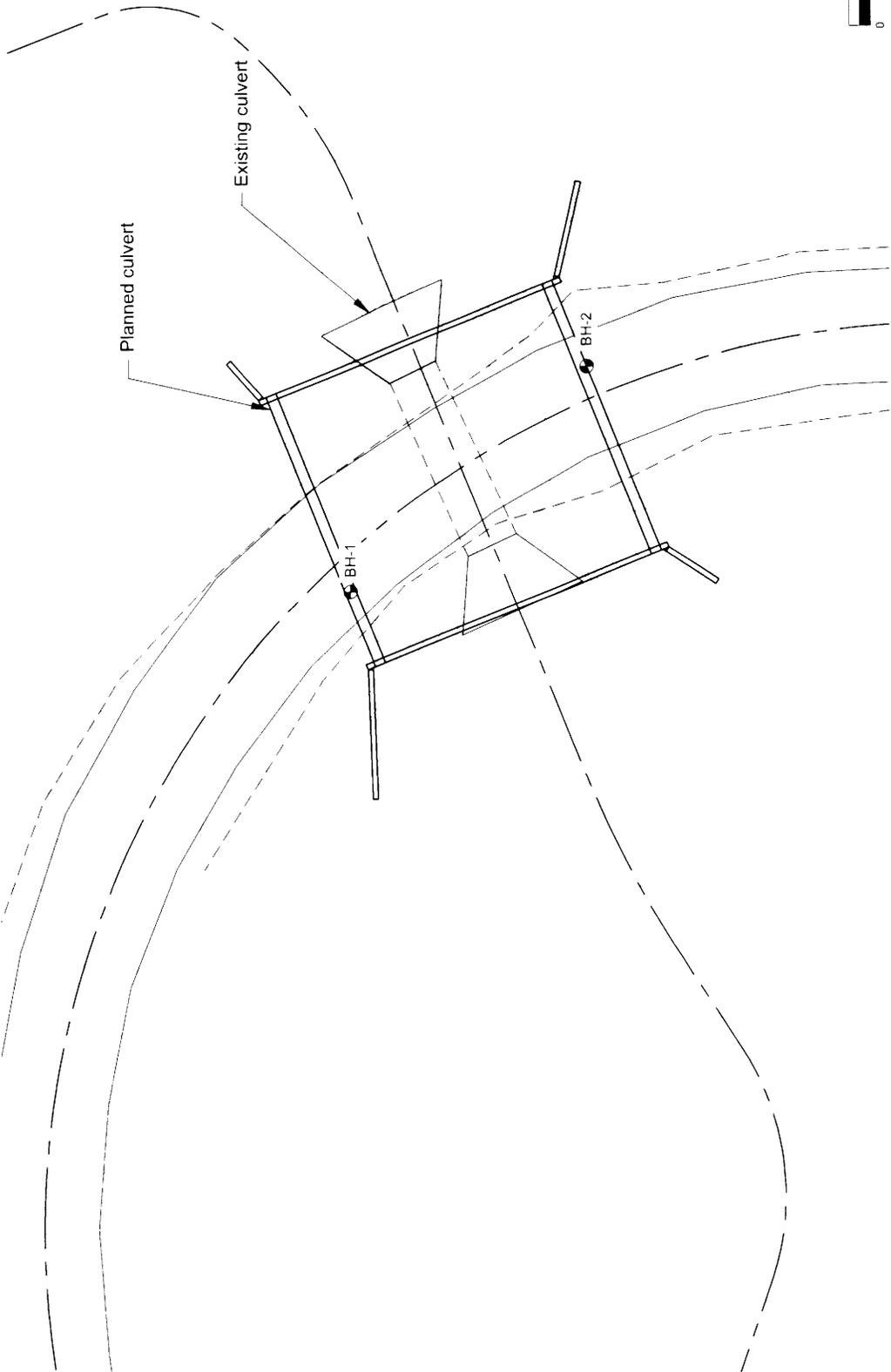


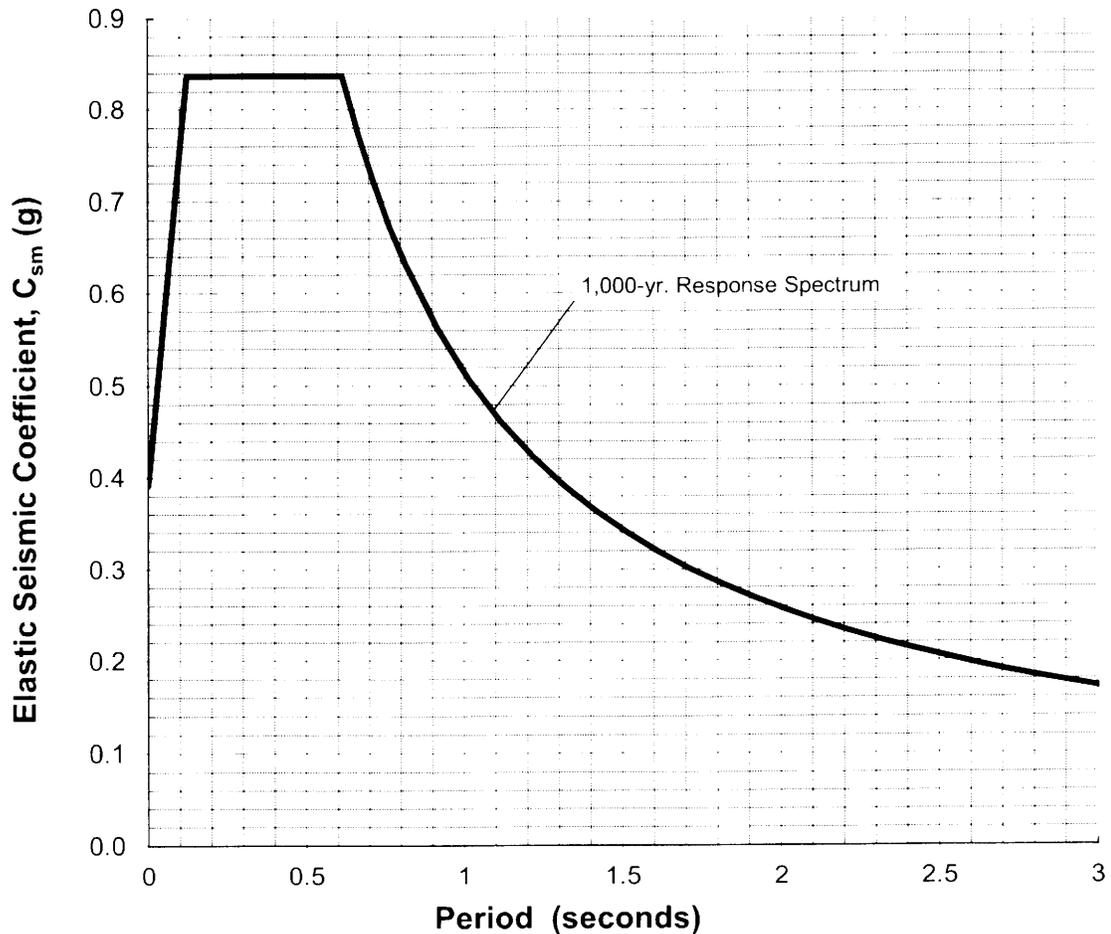
FIGURE NO.
2A

SITE LAYOUT AND BORING LOCATIONS
Garlock Road Delameter Creek Culvert Replacement
Cowlitz County, Washington

DATE: MAR 2002
DWN: JML
APPR: JML
REVIS: JML
PROJECT NO: 21911.31

FOUNDATION ENGINEERING INC.
PROFESSIONAL GEOTECHNICAL SERVICES
7887 SW COPPIN DRIVE, SUITE 24
BRIDGEPORT OR 97008
BUS: (503) 843-1841

- NOTES:
1. BORING LOCATIONS WERE ESTABLISHED BY MEASURING WHEEL REFERENCING EXISTING LANDMARKS AND ARE APPROXIMATE.
 2. SEE REPORT FOR A DISCUSSION OF SUBSURFACE CONDITIONS.
 3. BASE MAP PROVIDED BY PARAMETRIX, INC.



Notes:

- The Design Response Spectrum is based on AASHTO 2017 Section 3.10.3 using the following parameters:

	Site Class= D	Damping = 5%	
1,000-yr.	PGA = 0.301	$F_{pga} = 1.30$	$A_s = 0.39$
	$S_S = 0.657$	$F_a = 1.27$	$S_{DS} = 0.84$
	$S_1 = 0.244$	$F_v = 2.11$	$S_{D1} = 0.52$
- PGA, S_S , and S_1 values are based on USGS (2014) seismic hazard maps and were obtained using the WSDOT developed Spectra tool from the BridgeLink BEToolbox application (Version 3.2.6.0). The 1,000-yr. values assume 7% probability of exceedence in 75 years.
- F_{pga} , F_a , and F_v were established based on WSDOT Bridge Design Manual (2018) Tables 3.4.2.3-1A, 3.4.2.3-1B, and 3.4.2.3.2 using the selected PGA, S_S , and S_1 values, respectively.
- Site location is: Latitude 46.2597 Longitude -122.9692.

FIGURE 3A
AASHTO 2017 DESIGN RESPONSE SPECTRA
Garlock Road Delameter Creek Culvert Replacement
Cowlitz County, Washington
Project No.: 2191131



Appendix B

Boring Logs

DISTINCTION BETWEEN FIELD LOGS AND FINAL LOGS

A field log is prepared for each boring or test pit by our field representative. The log contains information concerning sampling depths and the presence of various materials such as gravel, cobbles, and fill, and observations of ground water. It also contains our interpretation of the soil conditions between samples. The final logs presented in this report represent our interpretation of the contents of the field logs and the results of the sample examinations and laboratory test results. Our recommendations are based on the contents of the final logs and the information contained therein and not on the field logs.

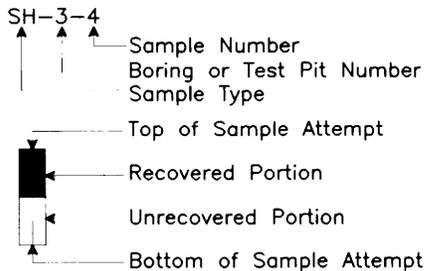
VARIATION IN SOILS BETWEEN TEST PITS AND BORINGS

The final log and related information depict subsurface conditions only at the specific location and on the date indicated. Those using the information contained herein should be aware that soil conditions at other locations or on other dates may differ. Actual foundation or subgrade conditions should be confirmed by us during construction.

TRANSITION BETWEEN SOIL OR ROCK TYPES

The lines designating the interface between soil, fill or rock on the final logs and on subsurface profiles presented in the report are determined by interpolation and are therefore approximate. The transition between the materials may be abrupt or gradual. Only at boring or test pit locations should profiles be considered as reasonably accurate and then only to the degree implied by the notes thereon.

SAMPLE OR TEST SYMBOLS



- C - Pavement Core Sample
- CS - Rock Core Sample
- OS - Oversize Sample (3-inch split-spoon)
- S - Grab Sample
- SH - Thin-walled Shelby Tube Sample
- SS - Standard Penetration Test Sample (split-spoon)
- ▲ Standard Penetration Test Resistance equals the number of blows a 140 lb. weight falling 30 in. is required to drive a standard split-spoon sampler 1 ft. Practical refusal is equal to 50 or more blows per 6 in. of sampler penetration.
- Water Content (%).

UNIFIED SOIL CLASSIFICATION SYMBOLS

- | | |
|------------|---------------------|
| G - Gravel | W - Well Graded |
| S - Sand | P - Poorly Graded |
| M - Silt | L - Low Plasticity |
| C - Clay | H - High Plasticity |
| Pt - Peat | O - Organic |

FIELD SHEAR STRENGTH TEST

Shear strength measurements on test pit side walls, blocks of soil or Shelby tube samples are typically made with Torvane or Field Vane shear devices.

TYPICAL SOIL/ROCK SYMBOLS

- | | | |
|----------|--------|-----------|
| Concrete | Sand | Basalt |
| Organics | Gravel | Sandstone |
| Clay | Silt | Siltstone |

WATER TABLE

- ▼ Water Table Location
(1/31/16) Date of Measurement



820 NW CORNELL AVENUE 7867 SW CIRCUS DRIVE, BUILDING 24
CORVALLIS, OR 97330 BEAVERTON, OR 97008
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SYMBOL KEY EXPLORATION LOGS

Explanation of Common Terms Used in Soil Descriptions

Field Identification	Cohesive Soils			Granular Soils	
	SPT*	S_u^{**} (tsf)	Term	SPT*	Term
Easily penetrated several inches by fist.	0 - 2	< 0.125	Very Soft	0 - 4	Very Loose
Easily penetrated several inches by thumb.	2 - 4	0.125-0.25	Soft	4 - 10	Loose
Can be penetrated several inches by thumb with moderate effort.	4 - 8	0.25 - 0.50	Medium Stiff	10 - 30	Medium Dense
Readily indented by thumb but penetrated only with great effort.	8 - 15	0.50 - 1.0	Stiff	30 - 50	Dense
Readily indented by thumbnail.	15 - 30	1.0 - 2.0	Very Stiff	> 50	Very Dense
Indented with difficulty by thumbnail.	>30	> 2.0	Hard		

* SPT N-value in blows per foot (bpf)

** Undrained shear strength

Term	Soil Moisture Field Description
Dry	Absence of moisture. Dusty. Dry to the touch.
Damp	Soil has moisture. Cohesive soils are below plastic limit and usually moldable.
Moist	Grains appear darkened, but no visible water. Silt/clay will clump. Sand will bulk. Soils are often at or near plastic limit.
Wet	Visible water on larger grain surfaces. Sand and cohesionless silt exhibit dilatancy. Cohesive soil can be readily remolded. Soil leaves wetness on the hand when squeezed. Soil is wetter than the optimum moisture content and above the plastic limit.

Term	PI	Plasticity Field Test
Non-plastic	0 - 3	Cannot be rolled into a thread at any moisture.
Low Plasticity	3 - 15	Can be rolled into a thread with some difficulty.
Medium Plasticity	15 - 30	Easily rolled into thread.
High Plasticity	> 30	Easily rolled and re-rolled into thread.

Term	Soil Structure Criteria
Stratified	Alternating layers at least ¼ inch thick.
Laminated	Alternating layers less than ¼ inch thick.
Fissured	Contains shears and partings along planes of weakness.
Slickensided	Partings appear glossy or striated.
Blocky	Breaks into small lumps that resist further breakdown.
Lensed	Contains pockets of different soils.

Term	Soil Cementation Criteria
Weak	Breaks under light finger pressure.
Moderate	Breaks under hard finger pressure.
Strong	Will not break with finger pressure.

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COMMON TERMS
SOIL DESCRIPTIONS

Explanation of Common Terms Used in Rock Descriptions

Field Identification		UCS (psi)	Strength	Hardness (ODOT)
Indented by thumbnail.	R0	< 100	Extremely Weak	Extremely Soft
Crumbles under firm blows with geological hammer, can be peeled by a pocket knife.	R1	100–1,000	Very Weak	Very Soft
Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with geological hammer.	R2	1,000–4,000	Weak	Soft
Cannot be scraped or peeled with a pocket knife, specimen can be fractured with a single blow of geological hammer.	R3	4,000–8,000	Medium Strong	Medium Hard
Specimen requires more than one blow of geological hammer to fracture it.	R4	8,000–16,000	Strong	Hard
Specimen requires many blows of geological hammer to fracture it.	R5	>16,000	Very Strong	Very Hard

Term	Weathering Field Identification
Fresh	Crystals are bright. Discontinuities may show some minor surface staining. No discoloration in rock fabric.
Slightly Weathered	Rock mass is generally fresh. Discontinuities are stained and may contain clay. Some discoloration in rock fabric.
Moderately Weathered	Significant portions of rock show discoloration and weathering effects. Crystals are dull and show visible chemical alteration. Discontinuities are stained and may contain secondary mineral deposits.
Highly Weathered (Predom. Decomp.)	Rock can be excavated with geologist's pick. All discontinuities exhibit secondary mineralization. Complete discoloration of rock fabric. Surface of core is friable and usually pitted due to washing out of highly altered minerals by drilling water.
Decomposed	Rock mass is completely decomposed. Original rock "fabric" may be evident (relict texture). May be reduced to soil with hand pressure.

Spacing (meters)	Spacing	Spacing Term	Bedding/Foliation
< 0.06	< 2 in.	Very Close	Very Thin (Laminated)
0.06 – 0.30	2 in. – 1 ft.	Close	Thin
0.30 – 0.90	1 ft. – 3 ft.	Moderately Close	Medium
0.90 – 3.0	3 ft. – 10 ft.	Wide	Thick
> 3.0	> 10 ft.	Very Wide	Very Thick (Massive)

Vesicle Term	Volume
Some vesicles	5 – 25%
Highly vesicular	25 – 50%
Scoriaceous	> 50%

Stratification Term	Description
Lamination	<1 cm (0.4 in.) thick beds
Fissile	Preferred break along laminations
Parting	Preferred break parallel to bedding
Foliation	Metamorphic layering and segregation of minerals

RQD %	Designation	RQD %	Designation
0 – 25	Very Poor	75 – 90	Good
25 – 50	Poor	90 – 100	Excellent
50 – 75	Fair		

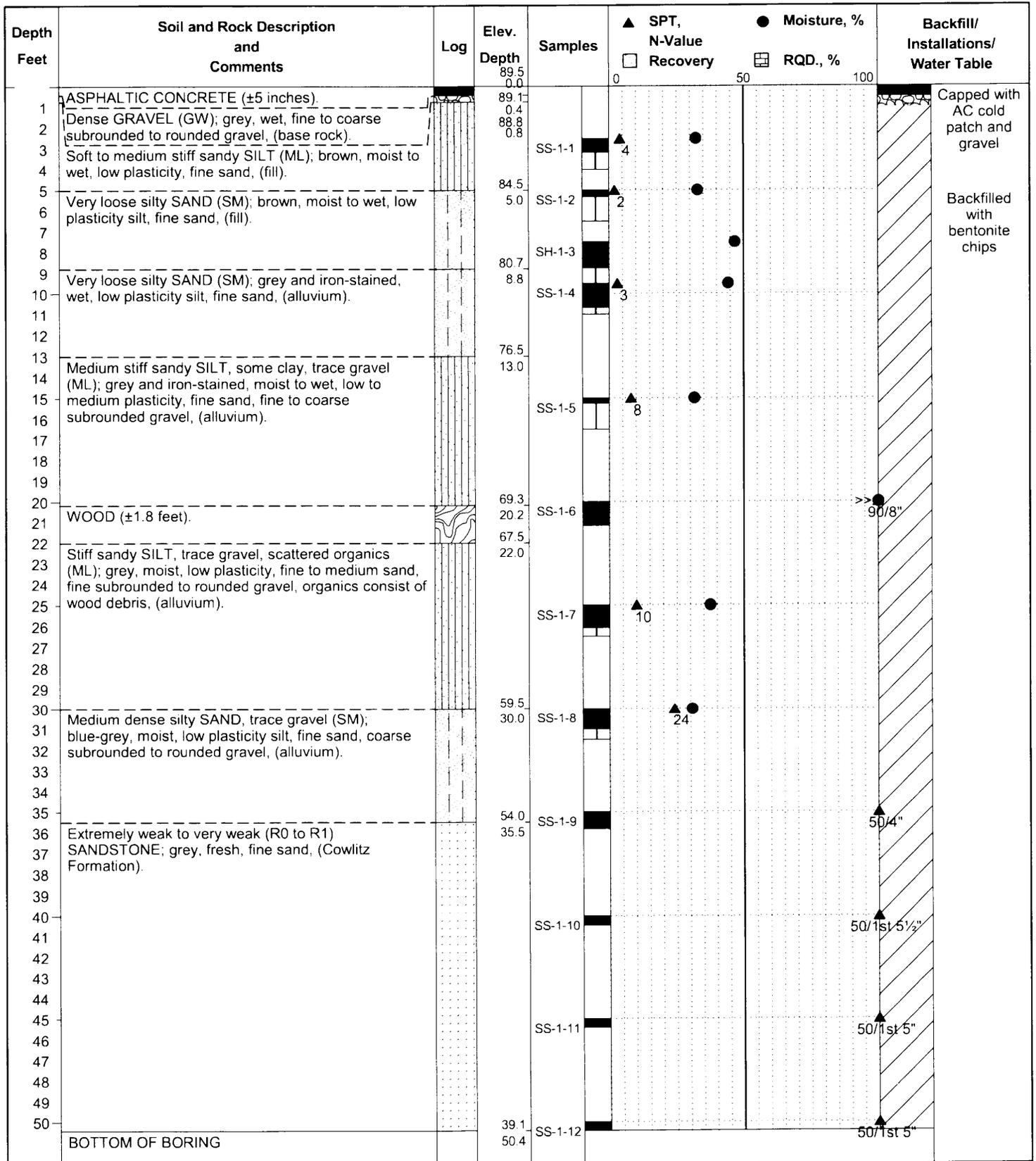
Rock Quality Designation (RQD) is the cumulative length of intact pieces 4 inches or longer excluding breaks caused by drilling and handling divided by run length, expressed as a percentage.



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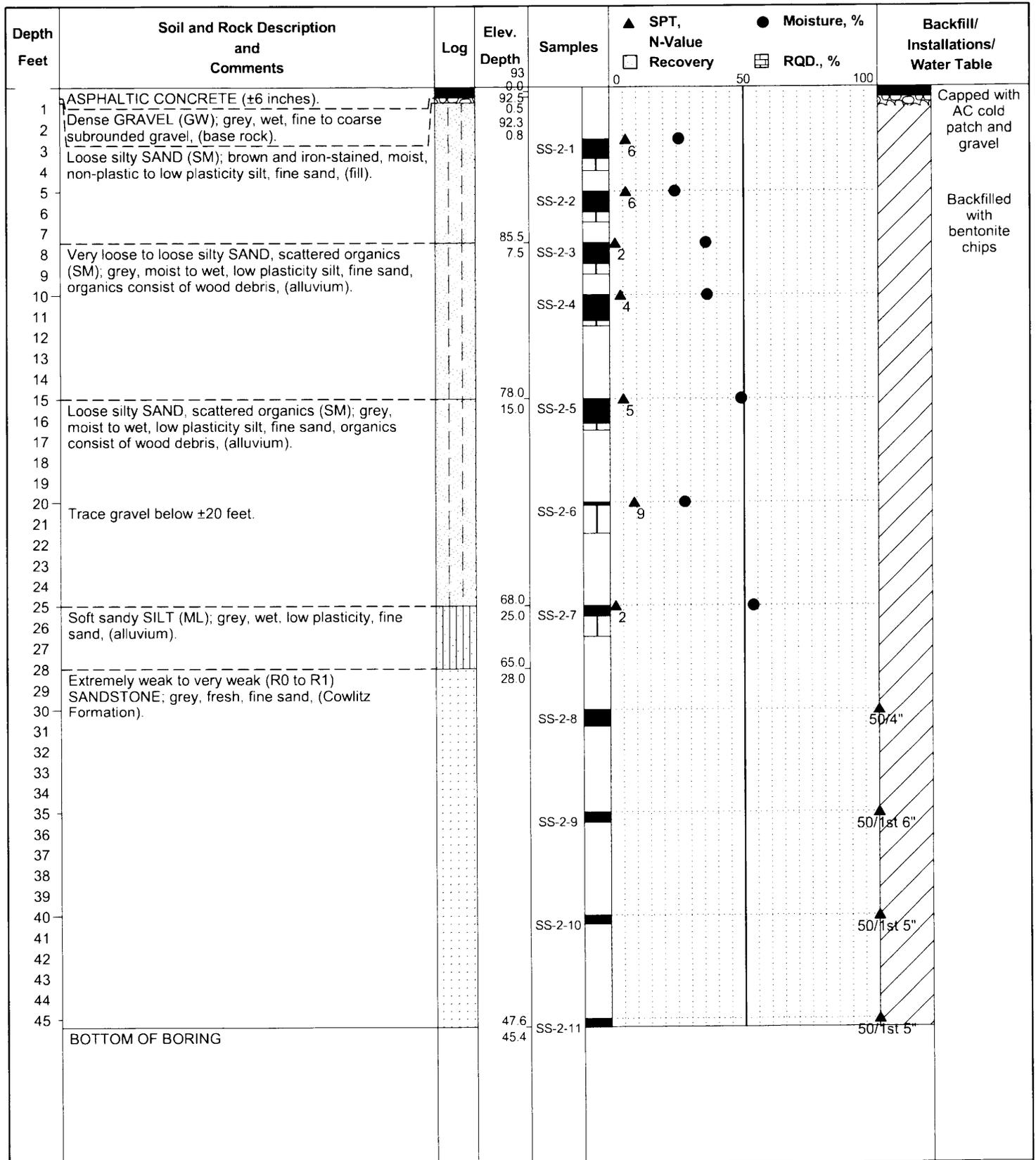
COMMON TERMS ROCK DESCRIPTIONS



Project No.: 2191131
 Surface Elevation: 89.5 feet (Approx.)
 Date of Boring: December 9, 2019

Boring Log: BH-1
Garlock Road Delameter Creek Culvert Replacement
Cowlitz County, Washington





Project No.: 2191131

Surface Elevation: 93.0 feet (Approx.)

Date of Boring: December 9, 2019

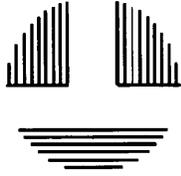
Boring Log: BH-2

Garlock Road Delameter Creek Culvert Replacement

Cowlitz County, Washington



Foundation Engineering, Inc.



Appendix C

Laboratory Testing

Table 1C. Moisture Contents (ASTM D2216) & Percent Fines (ASTM D1140)

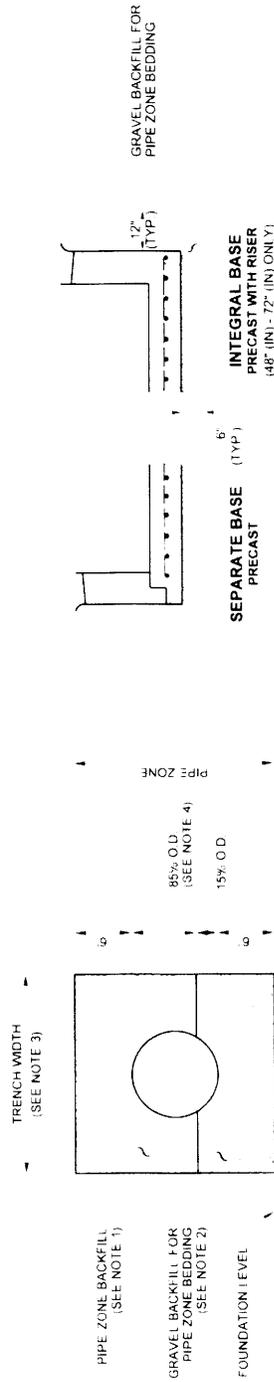
Sample Number	Sample Depth (feet)	Moisture Content (percent)	% Fines
SS-1-1	2.5 - 4.0	32.2	
SS-1-2	5.0 - 6.5	32.8	
SH-1-3	7.5 - 9.5	46.7	
SS-1-4	9.5 - 11.0	44.2	21.0
SS-1-5	15.0 - 16.5	31.5	
SS-1-6	20.0 - 21.5	104.4	
SS-1-7	25.0 - 26.5	37.4	
SS-1-8	30.0 - 31.5	30.6	
SS-2-1	2.5 - 4.0	25.8	
SS-2-2	5.0 - 6.5	24.3	
SS-2-3	7.5 - 9.0	35.8	
SS-2-4	10.0 - 11.5	36.3	
SS-2-5	15.0 - 16.5	48.9	
SS-2-6	20.0 - 21.5	27.8	
SS-2-7	25.0 - 26.5	53.3	52.6

Table 2C. Bulk Density (ASTM D2937)

Sample Number	Sample Depth (feet)	Moisture Content (percent)	Moist Bulk Density (pcf)	Dry Density (pcf)
SH-1-3	7.5 - 9.5	46.7	99.4	67.7

APPENDIX F

Applicable Standard Plans

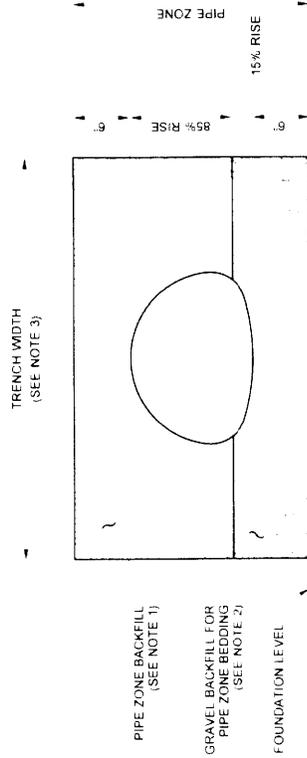


- NOTES**
1. See **Standard Specifications Section 7-08.3(3)** for Pipe Zone Backfill
 2. See **Standard Specifications Section 9-03.12(3)** for Gravel Backfill for Pipe Zone Bedding
 3. See **Standard Specifications Section 2-09.4** for Measurement of Trench Width
 4. For sanitary sewer installation, concrete pipe shall be imbedded to spring line

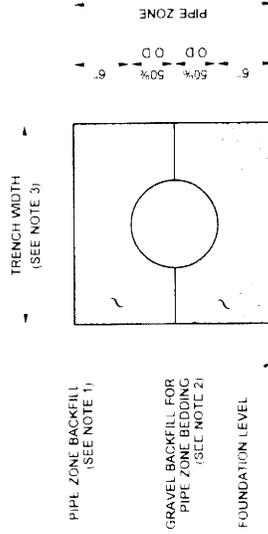
CONCRETE AND DUCTILE IRON PIPE

THIS DETAIL APPLIES TO STANDARD PLANS B-5.20, B-5.40, B-5.60, B-10.20, B-10.40, B-15.20, B-15.40, B-15.60, B-25.20, B-25.60, B-35.20 AND B-35.40.

TYPICAL CONDITION FOR DRAINAGE STRUCTURE



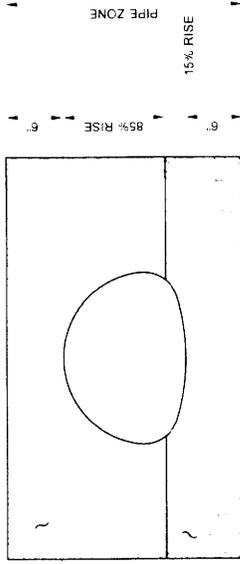
THERMOPLASTIC PIPE



METAL AND STEEL RIB REINFORCED POLYETHYLENE PIPE

CLEARANCE BETWEEN PIPES FOR MULTIPLE INSTALLATIONS		
PIPE	SIZE	MINIMUM DISTANCE BETWEEN BARRELS
CIRCULAR PIPE (DIAMETER)	UP TO 48"	24"
METAL PIPE ARCH (SPAN)	48" AND LARGER	DIAMETER/2 OR 36" WHICHEVER IS LESS

PIPE ARCHES



Aug 17, 2021

PIPE ZONE BEDDING AND BACKFILL

STANDARD PLAN B-55.20-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

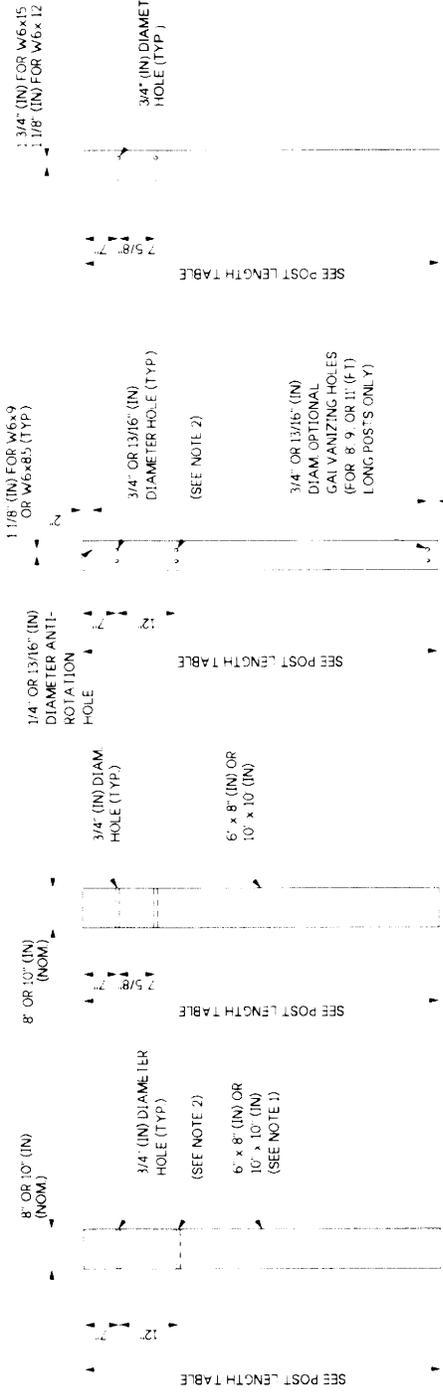
Aug 17, 2021

S. P. - TECHNICAL NO. 11-4

Washington State Department of Transportation

NOTES:

1. Wood posts for all guardrail placement plans shall be 6" x 8" (in) except where noted otherwise.
2. Lower hole is for w-beam rub rail of Beam Guardrail Type 31 - Buried Terminal Type 2.
3. W6x8.5 or W6x9 steel posts and timber blocks are alternates for 6x8 timber posts and blocks. W6x15 steel posts and timber blocks are alternates for 10" x 10" (in) timber posts and blocks.
4. Attach blockouts to steel posts using bolt holes on approaching traffic side of post web.
5. When "Beam Guardrail Type - -- Ft. Long Post" is specified in the contract, the post length shall be stamped with numbers, 1 1/2" min. high x 3/4" (in) wide at the location where the letter "H" is shown in the ASSEMBLY DETAIL. For wood post applications, the letter shall be stamped to a minimum depth of 1/4" (in). For steel post applications, the letter shall be legible after the post is galvanized. After post installation, it shall be the Contractor's responsibility to ensure the stamped numbers remain visible.



THRIE-BEAM (WOOD POST)

THRIE-BEAM (STEEL POST)

THRIE-BEAM (WOOD POST)

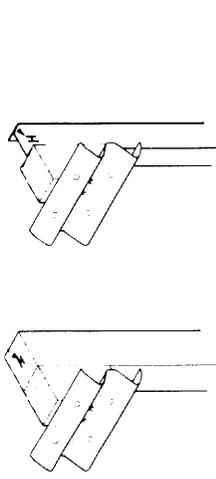
THRIE-BEAM (WOOD POST)

THRIE-BEAM (STEEL POST ~ SEE NOTES 3 AND 4)

W-BEAM (STEEL POST ~ SEE NOTES 3 AND 4)

W-BEAM (WOOD POST)

W-BEAM (WOOD POST)



(SEE NOTE 5)

(SEE NOTE 5)

POST	A	B
W6x8.5	6" NOMINAL	4 1/4"
W6x9	6" NOMINAL	4 1/4"
W6x12	6" NOMINAL	4 1/4"
W6x15	8" NOMINAL	6 1/4"

GUARDRAIL TYPE	LENGTH
TYPE 31	6'-0" x 8'-0" x 9'-0" x 11'-0" x
THRIE-BEAM	VARIES x x x

* SEE CONTRACT FOR BEAM GUARDRAIL TYPE - -- FT. LONG POST LENGTHS (SEE NOTE 5)

** SEE STANDARD PLANS FOR THRIE-BEAM POST LENGTHS



Oct 12, 2023

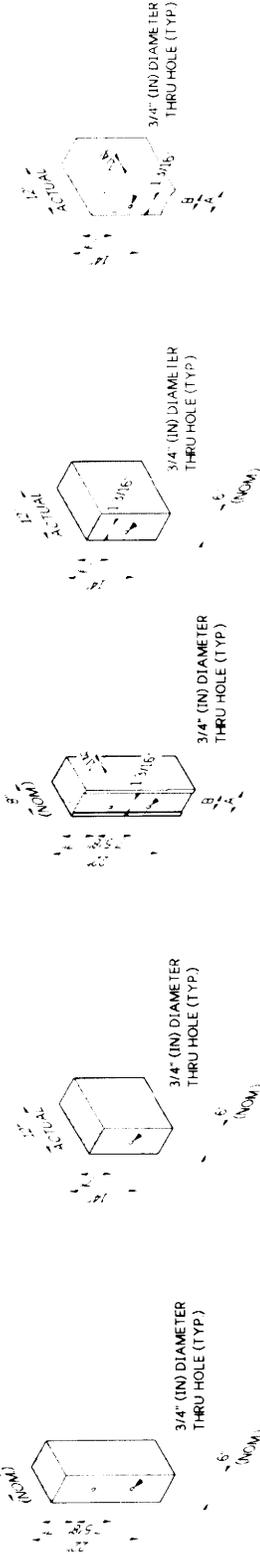
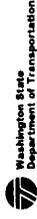
**BEAM GUARDRAIL POSTS AND BLOCKS
STANDARD PLAN C-1b**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Oct 12, 2023

STATE OF WASHINGTON



THRIE-BEAM WOOD BLOCK FOR WOOD POST

W-BEAM WOOD BLOCK FOR WOOD POST

ROUTED THRIE-BEAM WOOD BLOCK FOR STEEL POST

W-BEAM WOOD BLOCK FOR STEEL POST

ROUTED W-BEAM WOOD BLOCK FOR STEEL POST

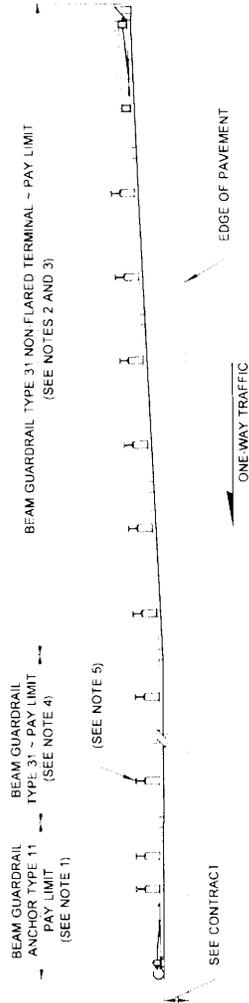
TIMBER POST PARTIAL ASSEMBLY DETAIL

W-BEAM STEEL POST PARTIAL ASSEMBLY DETAIL

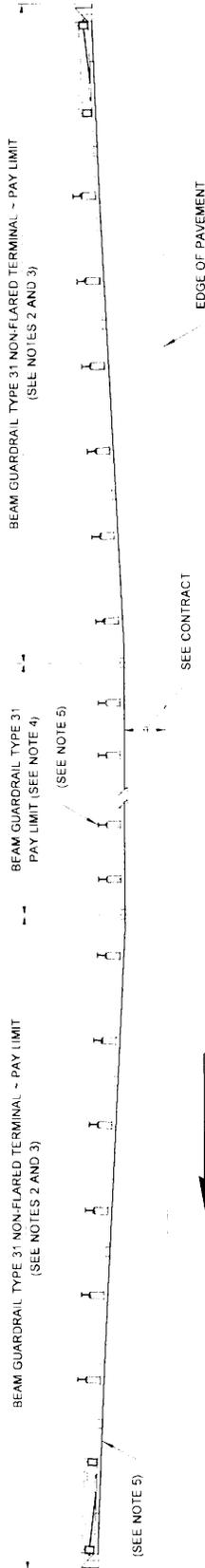
THRIE-BEAM STEEL POST PARTIAL ASSEMBLY DETAIL

NOTES

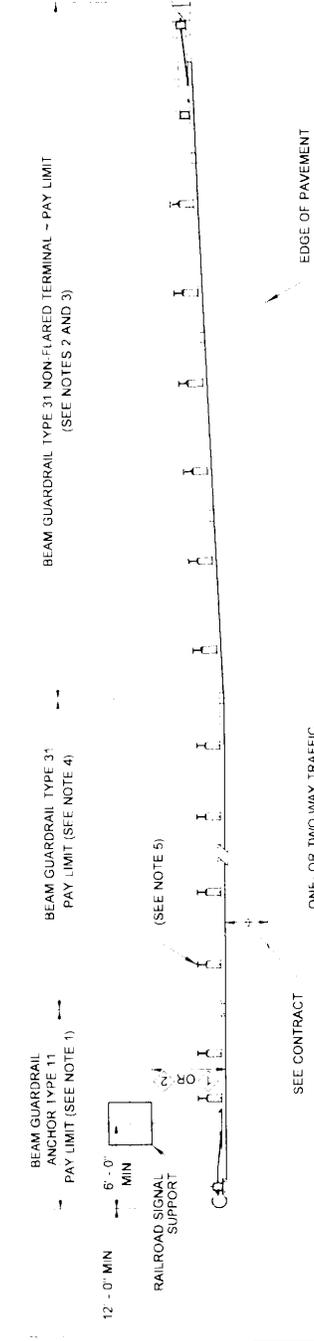
1. Where a crashworthy terminal is not required, use Beam Guardrail Anchor Type 11, see **Standard Plan C-23.70**
2. Where a crashworthy terminal is required, use a Beam Guardrail Type 31 Non-Flared Terminal, see **Standard Plan C-22.40 or C-22.45**.
3. For terminal type and details, see Contract Plans and applicable drawings
4. For additional details not shown on this plan, refer to **Standard Plan C-20.10**.
5. Timber or steel post. Steel post shown



CASE 1-31



CASE 2-31



KEY NOTES

1. 9'-0" Min. when railroad signal support is located 25-feet or less from end of guardrail run.
2. 5'-0" Min. when railroad signal support is located greater than 25-feet from end of guardrail run



Sep 8, 2022

**BEAM GUARDRAIL TYPE 31
PLACEMENT
(CASES 1-31, 2-31 & 3-31)
STANDARD PLAN C-20.14-05**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

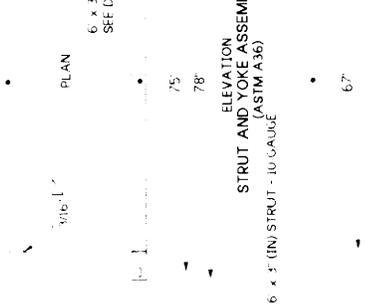
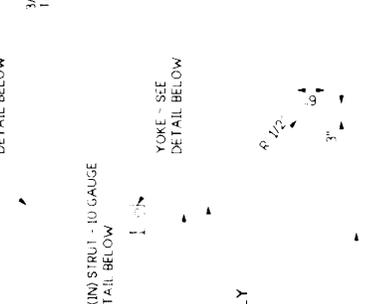
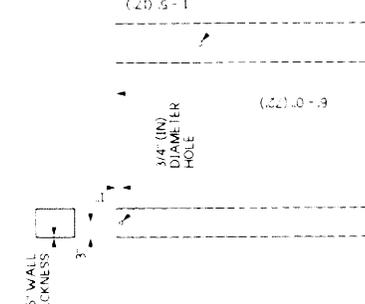
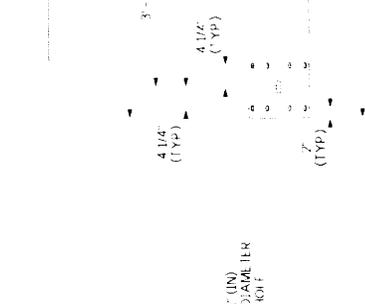
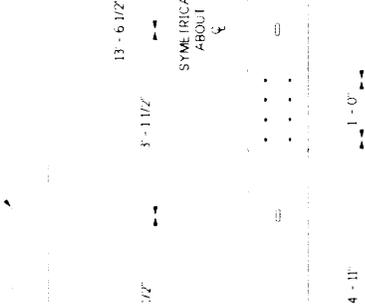
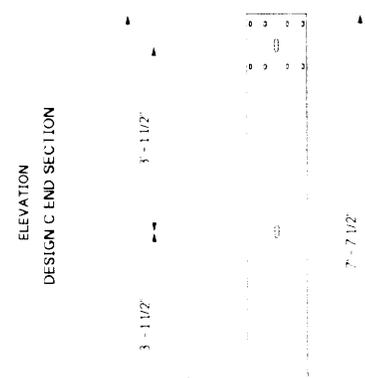
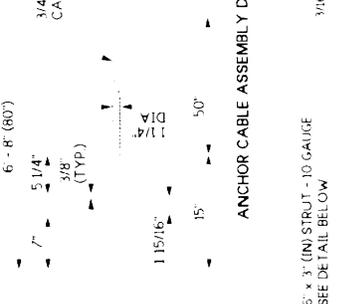
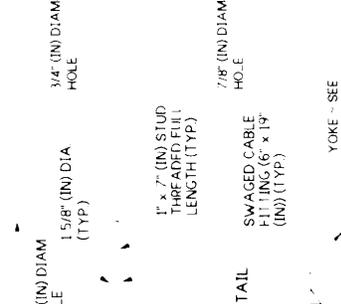
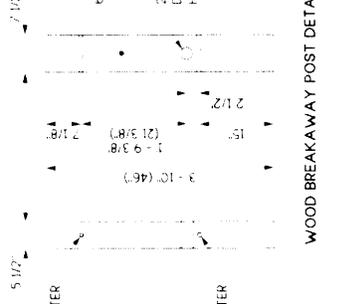
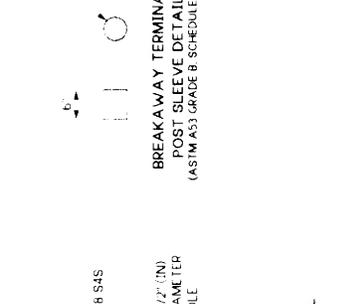
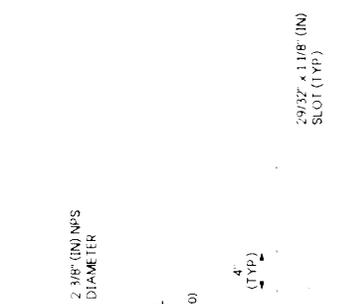
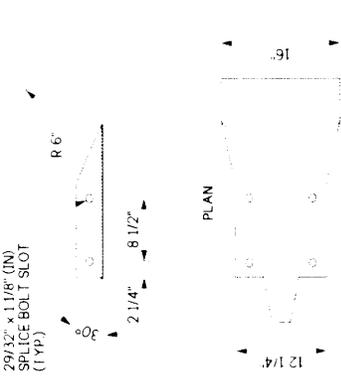
Maria Collins

Sep 8, 2022

STATE ENGINEER



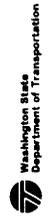
Washington State Department of Transportation



Oct 13, 2023

BEAM GUARDRAIL TYPE 31 ~
ANCHOR TYPE 11
STANDARD PLAN C-23.70-01

SHEET 2 OF 2 SHEETS
APPROVED FOR PUBLICATION
Oct 16, 2023

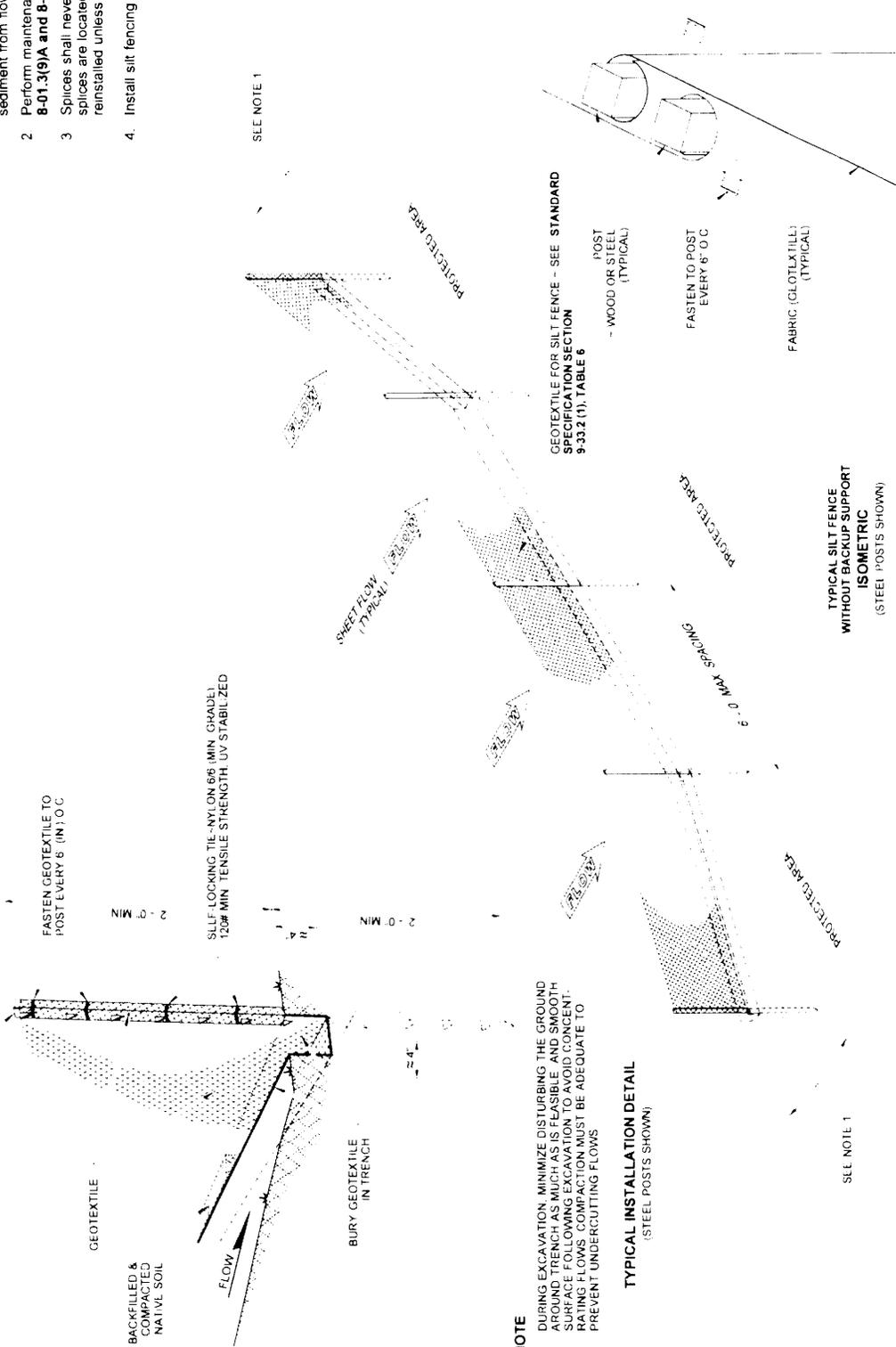


STATE DESIGN NUMBER

POST - SEE STD. SPEC. 8.01.3(9)A

NOTES

1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence
2. Perform maintenance in accordance with **Standard Specifications 8-01.3(9)A and 8-01.3(15)**
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation
4. Install silt fencing parallel to mapped contour lines.



NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
SANDRA L. SULLIBURY
 CERTIFICATE NO. 0008860

SILT FENCE

STANDARD PLAN I-30.15-02

SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
Pasco Bakotich III 3/22/13
 STATE DESIGN ENGINEER DATE
 Washington State Department of Transportation

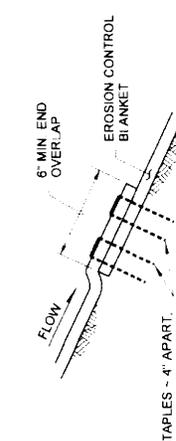
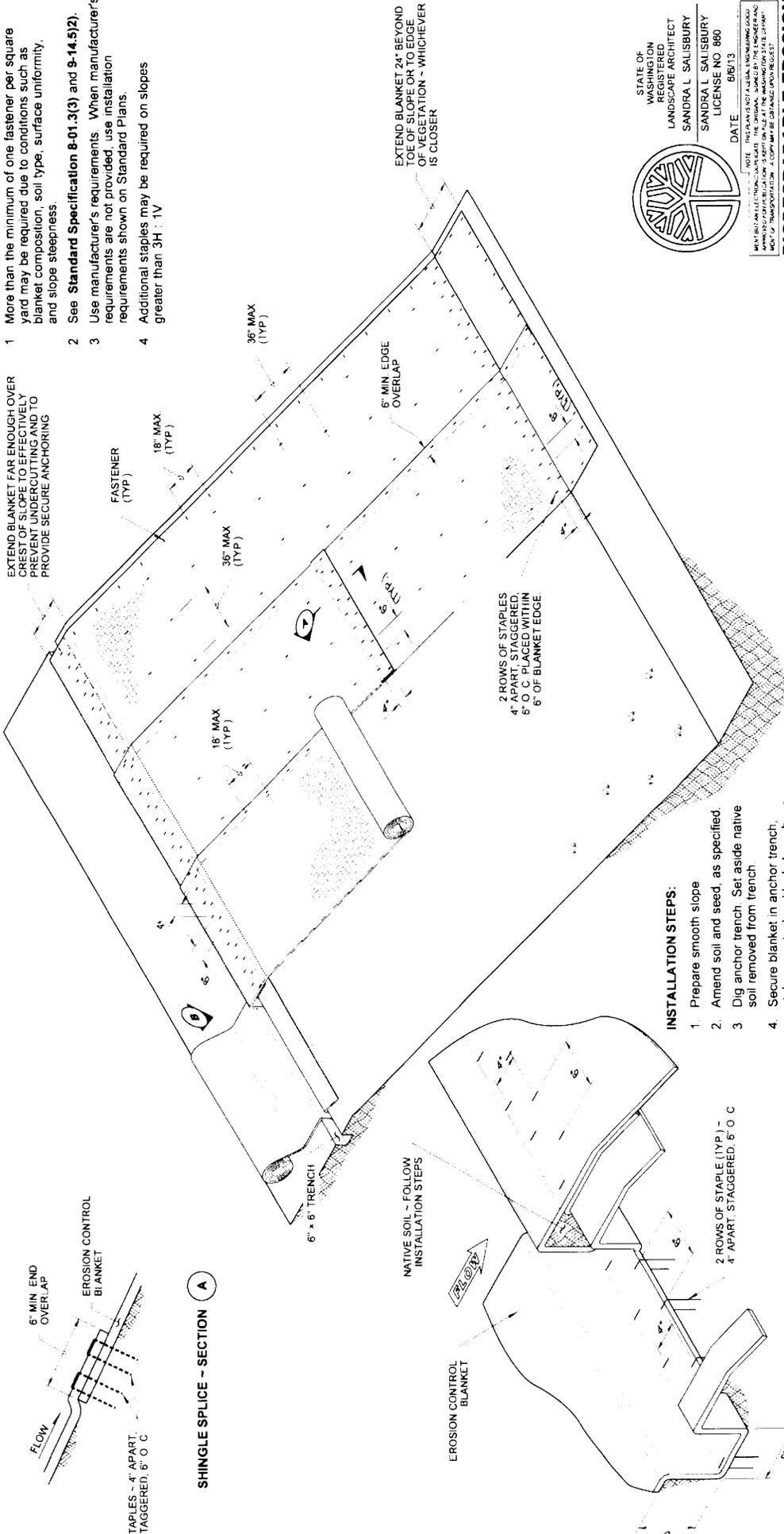
SPICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT-LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP

SPICE DETAIL
 (WOOD POSTS SHOWN)

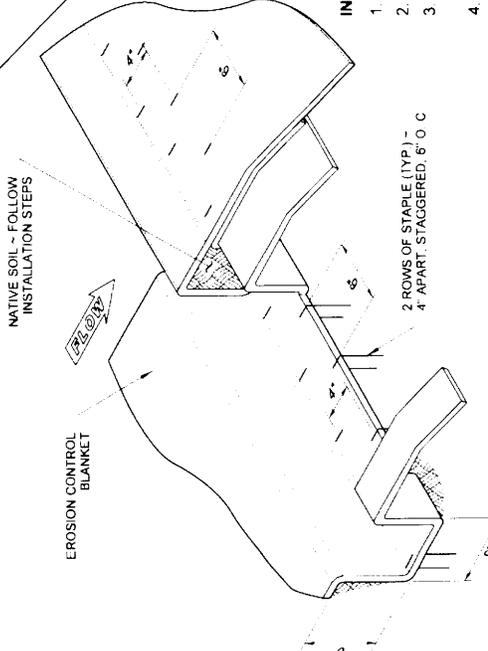
NOTES

- 1 More than the minimum of one fastener per square yard may be required due to conditions such as blanket composition, soil type, surface uniformity, and slope steepness.
- 2 See **Standard Specification 8-01.3(3) and 9-14.5(2)**.
- 3 Use manufacturer's requirements. When manufacturer's requirements are not provided, use installation requirements shown on Standard Plans.
- 4 Additional staples may be required on slopes greater than 3H : 1V

EXTEND BLANKET FAR ENOUGH OVER CREST OF SLOPE TO EFFECTIVELY PREVENT UNDERCUTTING AND TO PROVIDE SECURE ANCHORING



SHINGLE SPLICE - SECTION A



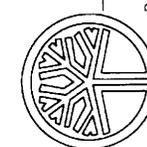
INITIAL ANCHOR - DETAIL B

INSTALLATION STEPS:

- 1 Prepare smooth slope
- 2 Amend soil and seed, as specified.
- 3 Dig anchor trench. Set aside native soil removed from trench.
- 4 Secure blanket in anchor trench, staking or stapling blanket as shown.
- 5 Replace native soil previously removed from trench.
- 6 Roll blanket down the slope in a controlled manner, taking care to remove excess slack, and taking care not to stretch blanket.
- 7 Stake or staple blanket as shown so there are no gaps between the blanket and the soil. Staple while unrolling blanket to minimize walking on blanket.

ISOMETRIC VIEW

EXTEND BLANKET 24\"/>



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
SANDRA L. SALISBURY
LICENSE NO. 880
DATE 6/6/13

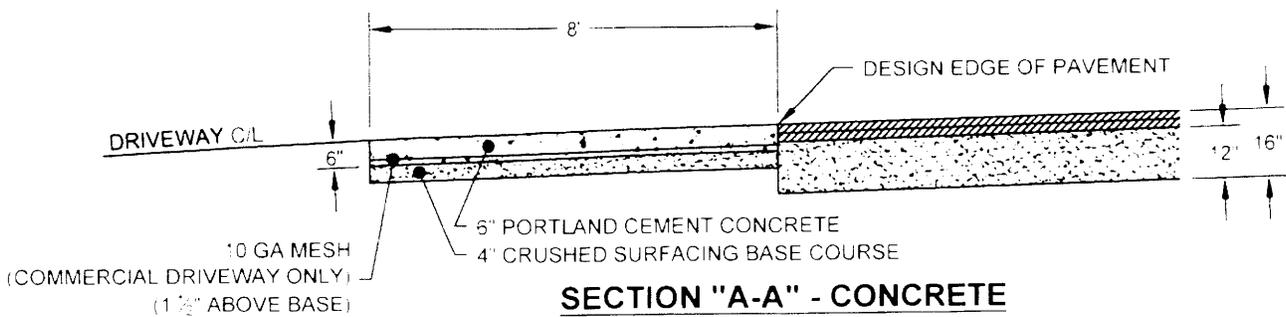
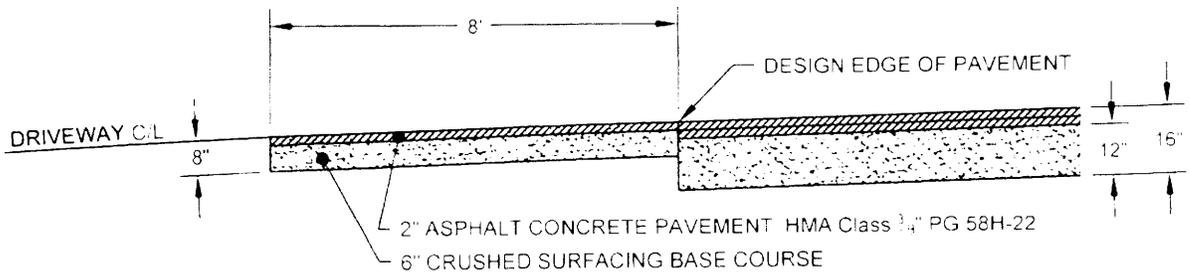
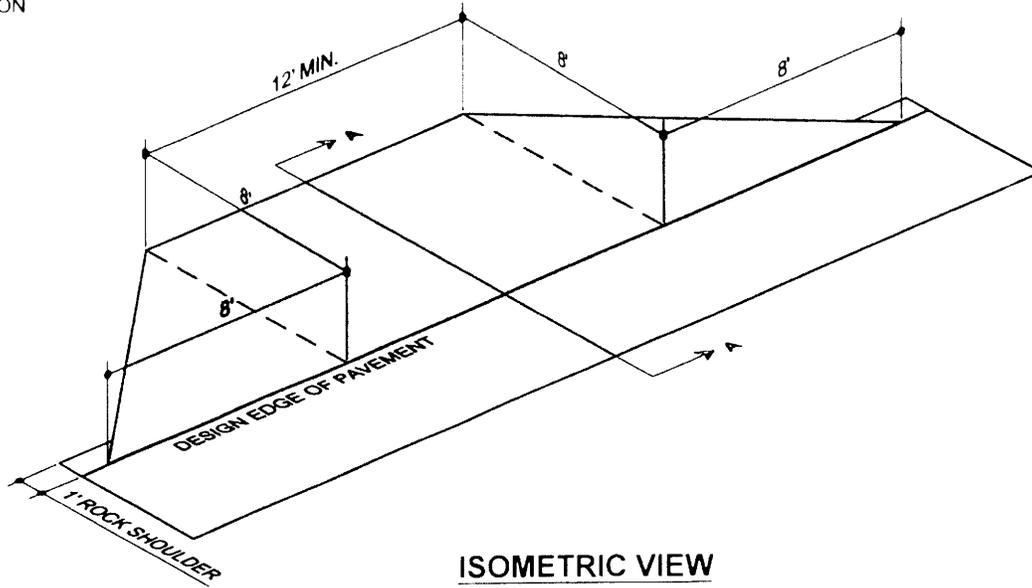
NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT. ANY ELECTRICAL, MECHANICAL, OR PLUMBING WORK SHOWN HEREIN IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE AN OFFERING OF PROFESSIONAL ENGINEERING SERVICES. A COPY MAY BE OBTAINED FROM THE SET.

BIODEGRADABLE EROSION CONTROL BLANKET PLACEMENT FOR SLOPES STANDARD PLAN I-60.10-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION **6/10/13** DATE
Pasco Bakotich III STATE DESIGN ENGINEER
 Washington State Department of Transportation

ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD BRIDGE AND MUNICIPAL CONSTRUCTION



NOTES:

- Concrete shall have a minimum compressive strength of 3000 p s i after 28 days - 6 sack mix

CPA
DESIGNED BY
SJM 3/5/25
DRAWN BY
[Signature]
APPROVED BY
3/17/25
DATE

STANDARD APPROACH

ASPHALT OR CONCRETE APRON
N T S



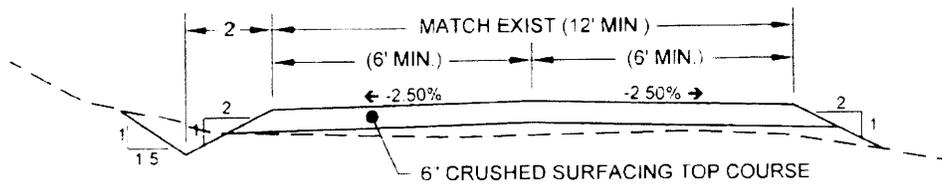
DEPARTMENT
OF PUBLIC
WORKS

207 4th AV. NORTH
KELSO, WASHINGTON
98626

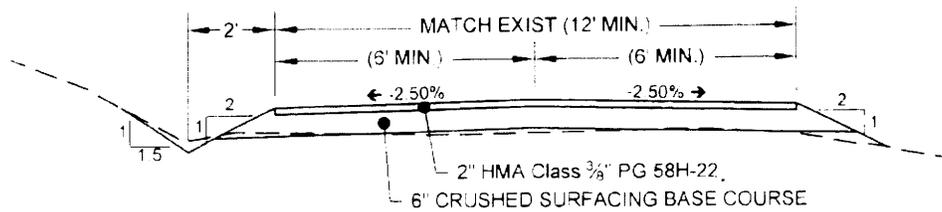
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SHEET
1
OF
1

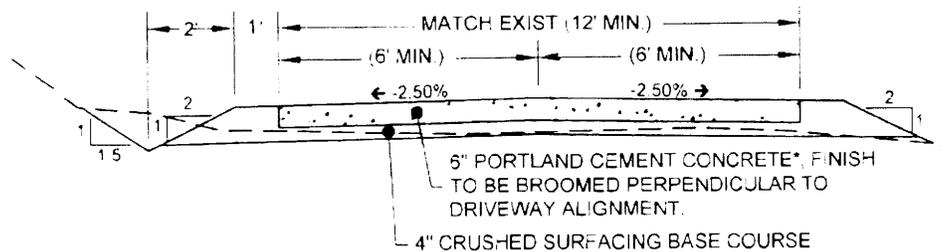
ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION



TYPICAL GRAVEL DRIVEWAY SECTION



TYPICAL ASPHALT DRIVEWAY SECTION



TYPICAL CONCRETE DRIVEWAY SECTION

NOTE:

- Concrete shall have a minimum compressive strength of 3000 p.s.i. after 28 days - 6 sack mix.

<p>CPA DESIGNED BY SJM 3/5/25 DRAWN BY <i>[Signature]</i> APPROVED BY 3/17/25 DATE</p>	<p>STANDARD DRIVEWAY</p>		<p>DEPARTMENT OF PUBLIC WORKS 207 4th AV. NORTH KELSO, WASHINGTON 98626 DRAWING:CC-1318</p>	<p>SHEET 1 OF 1</p>
<p>TYPICAL SECTIONS N T S</p>				

**ATTENTION PROPERTY OWNERS
AND
CONTRACTORS**



**CALL BEFORE
YOU DIG
1-800-424-5555**

The Cowlitz County Utility Coordination Council is comprised of local utilities whose common purpose is to help prevent accidents and damages to their underground facilities. ONE TELEPHONE CALL, 1-800-424-5555, two (2) working days prior to digging will relay a message to these utilities. On the next page is a listing of utilities and entities belonging to the Council.

Forty-eight (48) hours' notice (excluding weekends and holidays) is requested to permit our locators to mark our facilities for you. ONE CALL answering service is available twenty-four (24) hours a day, seven (7) days a week. All calls are recorded. (EMERGENCY LINE LOCATES ARE AVAILABLE AT ALL TIMES).

RCW 19.122.010, Washington Laws, 1988, Chapter 99 on Underground Utilities states that utilities shall be assigned "...responsibilities for locating and keeping accurate records of utility locations, protecting and repairing damage to existing underground facilities, and protecting the public health and safety from interruption in utility services caused by damage to existing underground utility facilities."

Callers are asked to use white paint to show their proposed path of excavation. Each locator uses a different color paint to show their underground facility (see reverse page). Digging should be done by hand 18" on either side of marking until utility is visible, before using other equipment.

**PLAN FOR SAFETY – CALL BEFORE YOU DIG
LOCATING SERVICES ARE FREE**

Thank you,

Cowlitz County
Utility Coordination Council

THE FOLLOWING LOCAL UTILITIES, ENTITIES AND OTHERS FORM THE COWLITZ COUNTY UTILITY COORDINATION COUNCIL:

		<u>COLOR CODE</u>
POWER	P.U.D. OF COWLITZ COUNTY	RED
GAS	CASCADE NATURAL GAS NORTHWEST PIPELINE CORPORATION OLYMPIC PIPE LINE COMPANY	YELLOW
TELEPHONE	AT&T GENERAL TELEPHONE KALAMA TELEPHONE U.S. SPRINT COMMUNICATIONS CENTURY LINK VERIZON COMMUNICATIONS FRONTIER CASCADE NETWORKS	ORANGE
WATER	BEACON HILL SEWER DISTRICT CITY OF CASTLE ROCK CITY OF KALAMA CITY OF KELSO CITY OF LONGVIEW CITY OF WOODLAND COWLITZ COUNTY PUBLIC WORKS P.U.D. OF COWLITZ COUNTY	BLUE
SEWER	BEACON HILL SEWER DISTRICT CITY OF CASTLE ROCK CITY OF KALAMA CITY OF KELSO CITY OF LONGVIEW CITY OF WOODLAND COWLITZ COUNTY PUBLIC WORKS (includes leachate pipeline)	GREEN
T.V. CABLE	COMCAST WASHINGTON STATE DEPARTMENT OF TRANSPORTATION	ORANGE

(OTHER UTILITIES MAY JOIN IN THE FUTURE – PLEASE ASK THE OPERATOR)

REPORT ALL EMERGENCIES TO “911”. All other damages should be reported directly to the utilities involved.

Nicks in insulation of gas, power or telephone should be reported to utilities promptly, as failure later can cause serious injuries or damages.

END OF CONTRACT