Cowlitz County
Department of Public Works

CONTRACT DOCUMENTS
FOR

HAZEL DELL ROAD SLIDE REPAIR PROJECT
(M.P. 1.76 to 1.80, Road Number 21300)

SW ¼ SEC. 33, T9N, R2W

Cowlitz County Project No. 1772
C.R.P. No. 795

MARCH, 2024

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

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MARCH, 2024

03/25/2024

03/25/2024

Responsible for all portions of the Contract Documents

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

Approved by:

Susan Eugenis 3/25/24

Susan Eugenis, P.E. Date
County Engineer

HAZEL DELL ROAD SLIDE REPAIR PROJECT

TABLE OF CONTENTS

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

***Included as indicated but numbered independently.

CALL FOR BIDS

The Board of County Commissioners of Cowlitz County, Washington will receive sealed bids until **May 1, 2024**, **prior to 1:30 p.m.**, for the following work: **HAZEL DELL ROAD SLIDE REPAIR PROJECT.**

Work performed under this contract consists of the following:

Excavation, removal of existing concrete block wall, construction of drilled shafts with steel soldier piles in concrete, installation of precast concrete lagging and subsurface drains, installation of tie-back anchors, roadway reconstruction, installation of beam guardrail, installation and maintenance of temporary traffic signals, and associated work.

At that time all bids will be publicly opened and read in the Board's hearing room. Bids must be addressed to:

Board of County Commissioners
Attn: Clerk of the Board
207 Fourth Avenue North
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 2nd day of April, 2024.

BOARD OF COUNTY COMMISSIONERS
OF COWLITZ COUNTY, WASHINGTON

DocuSigned by:
Richard Dahl
0AD76D9B17B54F5...
Richard R. Dahl, Chairman

DocuSigned by:
Arne Mortensen
50C0340DDE244E6...
Arne Mortensen, Commissioner

DocuSigned by:
Dennis Weber
9959C1D2F93B41D...
Dennis P. Weber, Commissioner

DocuSigned by:

ATTEST:

COWLITZ COUNTY WASHINGTON

DocuSigned by:
Kelly Dombrowsky
39750CE5FD1E47A...
Kelly Dombrowsky, Clerk of the Board

BIDDER'S CHECKLIST

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

HAZEL DELL ROAD SLIDE REPAIR 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. CERTIFICATION OF APPRENTICESHIP – In the spaces provided on the PROPOSAL FORM, provide information on the BIDDER'S Apprenticeship Programs.

☒ 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. LOCAL AGENCY SUBCONTRACTOR LISTS – To be filled in and signed by BIDDER.

☐ 10. CONTRACTOR'S PROJECT INFORMATION STANDARD QUESTIONNAIRE - The BIDDER shall complete this form.

☒ 11. 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.

☒ 12. E-VERIFY DECLARATION – The BIDDER shall complete and sign this form.

☒ 13. 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.

PROPOSAL FORM

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

FOR: **HAZEL DELL ROAD SLIDE REPAIR 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 **2024** 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 Board of County Commissioners
Attn: Clerk of the Board
County Administration Building, 3rd Floor
207 Fourth Avenue North
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	10,000.00	10,000.00
2	1 Hours	Replacement Staking Services	-200.00	-200.00
3	Lump Sum	Mobilization		
4	Lump Sum	Project Temporary Traffic Control		
5	Lump Sum	Clearing and Grubbing		
6	Lump Sum	Removal of Structures and Obstructions		
7	540 C.Y.	Roadway Excavation, Embankment and Disposal Including Haul		
8	Lump Sum	Trimming and Cleanup		
9	342 S.Y.	Construction Geotextile for Separation		
10	633 Ton	Structural Fill Including Haul		
11	276 Ton	Crushed Surfacing Base Course		
12	58 Ton	HMA Class 3/8 Inch PG 58H-22		
13	3 Ton	HMA Class 3/8 Inch PG 58H-22 For Approach		
14	Calculation	Asphalt Cost Price Adjustment	0.00	0.00
15	145 C.Y.	Gravel Backfill for Wall		

Item No.	Approximate Quantity	ITEM	UNIT PRICE $	AMOUNT $
16	450 L.F.	Shaft – 30 In. Diameter		
17	565 L.F.	Furnishing Soldier Pile – HP14x89		
18	1135 S.F.	Precast Concrete Lagging		
19	100 S.Y.	Prefabricated Drainage Mat		
20	Force Account	Removal of Soldier Pile Shaft Obstructions	$10,000.00	$10,000.00
21	12 Each	Permanent Ground Anchor		
22	3 Each	Permanent Ground Anchor Performance Test		
23	141 L.F.	Drain Pipe, 4-In. Diam.		
24	40 L.F.	Corrugated Polyethylene Culv. Pipe 12-In Diam.		
25	Lump Sum	Erosion Control and Water Pollution Prevention		
26	175 L.F.	Beam Guardrail Type 1		
27	175 L.F.	Removing Guardrail		
28	1 Each	Mailbox Support, Type 1		
29	750 L.F.	Paint Line		

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: _____

BID DEPOSIT FORM

HAZEL DELL ROAD SLIDE REPAIR 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 _____, 2024.

_____	_____
Name of Bidder	Name of Surety
_____	_____
Authorized Signature	Authorized Signature*
_____	_____
Title	Title
_____	
Date	*Attach Power of Attorney

E-VERIFY DECLARATION

HAZEL DELL ROAD SLIDE REPAIR PROJECT
Cowlitz County Project No. 1772

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 the request could lead to suspension of this contract.

Dated at _____, State of _____ on this _____ day of _____, 2024.

Signature _____

Printed Name _____

THIS PAGE MUST BE RETURNED WITH THE BID DOCUMENTS

COMPLIANCE WITH WAGE PAYMENT LAWS DECLARATION

HAZEL DELL ROAD SLIDE REPAIR PROJECT
Cowlitz County Project No. 1772

Firm Name: _____

1. The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date April 2, 2024, 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 _____2024.

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: **HAZEL DELL ROAD SLIDE REPAIR 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: **1-29**.

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 **2024** 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. It is not anticipated that any excavation 4-feet or more in depth will be required for completion of the Work under this contract. Therefore, no bid item for trench safety systems is included in the bidder's proposal. In the event in the performance of the contract the Engineer directs excavation such that shoring or extra excavation is required as determined by the Engineer, payment to the Contractor for such work will be made in accordance with Standard Specifications Section 1-04.4.

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

Arne Mortensen, Commissioner

Dennis P. Weber, Commissioner

ATTEST:

Kelly Dombrowsky, Clerk of the Board

Date

APPROVED AS TO FORM:

Civil Deputy Prosecuting Attorney

Name of Contractor

Signatory Authorized by Firm Bylaws
to Bind Contractor

Title

Date

Washington Contractor's Registration Number

[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: **HAZEL DELL ROAD SLIDE REPAIR 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*, 2024 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 *** **Excavation, removal of existing concrete block wall, construction of drilled shafts with steel soldier piles in concrete, installation of precast concrete lagging and subsurface drains, installation of tie-back anchors, roadway reconstruction, installation of beam guardrail, installation and maintenance of temporary traffic signals,** *** 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 – Plans
Appendix B – Topographic Survey
Appendix C – Geotechnical Design Recommendations
Appendix D – Soldier Pile Installation Field Record
Appendix E – Cowlitz County and WSDOT 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.

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 Examination of Plans, Specifications, and Site of Work

****

1-02.4(1) General

Add the following to Section 1-02.4(1):

Pile locations will be field staked by the County prior to the Call for Bids. Staking to consist of an in line offset at each end of the piles and a horizontal offset from the piles on each end.

1-02.5 Proposal Forms

(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

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

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

1-02.6 Preparation of Proposal

Section 1-02.6 is supplemented with the following:

(November 20, 2023)

The fourth and fifth paragraphs of Section 1-02.6 are deleted.

1-02.6 Preparation of Proposal
(January 4, 2024 APWA GSP 1-02.6, 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.
5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

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

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

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

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

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

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

Add the following new section:

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

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

1-02.9 Delivery of Proposal
(*******)

Delete this section and replace it with the following:

General

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

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

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

1-02.10 Withdrawing, Revising, or Supplementing Proposal

(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:

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

1-02.13 Irregular Proposals

(January 4, 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 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 Contact 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 Soldier Piles
2.) Precast concrete lagging
3.) Tie-back anchors
4.) Prefabricated drainage mat
5.) Prefabricated universal tee outlet
6.) Temporary traffic signal system

1-05.4 Conformity with and Deviations from Plans and Stakes

Section 1-05.4 is supplemented with the following:

(*******)
The Contracting Agency will provide construction surveying following a written request by the Contractor. The Contractor shall prepare the project site as necessary to accommodate the survey operations. This includes clearing and grubbing, and any excavation or placement of fill materials necessary for the stakes to be placed at the correct elevations. If the Contracting Agency's survey personnel arrive at the project site and the site has not been adequately prepared for the specific surveying task, the survey request will be denied and returned to the Contractor. The Contracting Agency will not provide the requested surveying services until a new request has been submitted by the Contractor.

The Contractor shall provide sufficient, safe and adequate space for the surveyors to set points and elevations and shall use caution whenever it is necessary to have equipment working at the same time and the same vicinity as the Contracting Agency's survey personnel. If the Engineer determines that sufficient, safe and adequate space is not provided, then survey personnel may be withdrawn until corrective action is taken by the Contractor to the satisfaction of the Engineer.

The Contractor shall assume full responsibility for the interpretation and measurements from the stakes, hubs or marks. If the Contractor notices any discrepancies in line or grade, the Contractor shall bring them to the immediate attention of the Engineer, prior to constructing the affected work.

Replacement Staking Services

If at any time the Contracting Agency is required to replace survey staking previously done by the Contracting Agency, the Contractor shall bear the expense. The Contractor shall be charged by the hour at the rate set in the bid proposal form for each hour that the replacement staking requires.

Measurement

Replacement staking services shall be measured by the whole hour rounded up for any partial hour. The time for determining the hour charges will be from the time the Contracting Agency's personnel leave their current work until they return to that work at the same point as the departure.

Payment

"Replacement Staking Services", per hour, will be deducted off the regular and final progress payments at the rate per hour shown in the bid proposal form.

Add the following new sub-:

1-05.4 Conformity with and Deviations from Plans and Stakes
Supplement this section with the following:

Roadway and Utility Surveys
(July 23, 2015 APWA GSP, Option 1)

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

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

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

1-05.7 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 notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

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

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

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

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

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

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

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

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

1-05.11(3) Operational Testing

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

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

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

1-05.13 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

Section 1-06 is supplemented with the following:
Build America/Buy America

(December 20, 2023)
General Requirements
In accordance with Buy America Preferences for Infrastructure Projects requirements contained in 2 CFR 184 and Division G, Title IX - Build America, Buy America Act (BABA), of Public Law 117-58 (Infrastructure Investment and Jobs Act), the following materials must be American-made:

1. All steel and iron used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

3. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

An article, material, or supply will be classified in one of three categories: 1) Steel and Iron, 2) Manufactured Product or 3) Construction Material. Only a single category will apply to an item and be subject to the requirements of the BABA requirements of that category. Some contract items are composed of multiple parts that may fall into different categories. Individual components will be categorized as a construction material, manufactured product, or steel and iron based on their composition when they arrive at the staging area or work site. When steel or iron are a component of a manufactured product or construction material, the steel and iron components will be subject to "Steel and Iron Requirements" of this Specification.

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

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

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

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

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

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

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

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

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

Construction Materials do not include items of primarily iron or steel; manufactured products; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

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

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

3. Manufactured in the United States: A construction material will be considered as manufactured in the United States if all manufacturing processes have occurred in the United States.

4. Structural Steel: Defined as all structural steel products included in the project.

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

Steel and Iron Requirements

Major quantities of steel and iron construction materials that are permanently incorporated into the project shall consist of American-made materials only. BABA requirements do not apply to temporary steel or iron items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

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

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

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

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

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

The following are considered to be steel manufacturing processes:

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

    a. Open hearth furnace.
    b. Basic oxygen.
    c. Electric furnace.
    d. Direct reduction.

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

3. Fabrication of the products:

    a. Spinning wire into cable or strand.
    b. Corrugating and rolling into culverts.
    c. Shop fabrication.

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

Manufactured Products
Due to a nationwide waiver, BABA requirements do not apply to manufactured products. Manufactured products that contain steel and iron, regardless of a nationwide waiver, will follow "Steel and Iron Requirements" of this Specification.

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

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

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

The total applicable material costs shall be the sum of the costs all Construction Materials, all Steel and Iron, and all Manufactured Products. Total applicable material costs does not include the cost of cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

Steel and iron materials shall follow the "Steel and Iron Requirements" of this Specification.

(October 5, 2022)
The following items of work containing steel, iron or other construction materials are considered to be temporary and are excluded from the Build America/Buy America requirements contained in Public Law 117-58 (Infrastructure Investment and Jobs Act):

*** Temporary Traffic Control Items ***

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.

1-06 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.

1-07.7 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.

1-07.13 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:

(April 2, 2007)

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

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

**Power:	Cowlitz Public Utility District 961 12th Avenue Longview, Washington 98632 (360) 577-7546
Gas:	Cascade Natural Gas 2688 Coweeman Park Dr. Kelso, Washington 98626 (888) 522-1130
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
(December 30, 2022 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.

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:

$1,000,000	Each Occurrence
$2,000,000	General Aggregate
$2,000,000	Products & Completed Operations Aggregate
$1,000,000	Personal & Advertising Injury each offence
$1,000,000	Stop Gap / Employers' Liability each accident

1-07.18(5)B Automobile Liability

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

Such policy must provide the following minimum limit:

$1,000,000 Combined single limit each accident

1-07.18(5)C Workers' Compensation

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

1-07.18(5)K Professional Liability

(December 30, 2022 APWA GSP)

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

Such policy shall provide the following minimum limits:

$1,000,000 per claim and annual aggregate

If the scope of such design-related professional services includes work related to pollution conditions, the Professional Liability insurance shall include coverage for Environmental Professional Liability.
If insurance is on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract.

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.

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
(October 10, 2008 APWA GSP)

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

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

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

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

Add the following new section:

1-08.0(2) Hours of Work
(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
(May 25, 2006 APWA GSP)

Where the Contractor elects to work on a Saturday, Sunday, or holiday, or longer than an 8-hour work shift on a regular working day, as defined in the Standard Specifications, such work shall be considered as overtime work. On all such overtime work 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
(December 30, 2022 APWA GSP, Option A)

Section 1-08.1 is supplemented with the following:

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

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

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

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

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

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

1-08.1 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.

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.

1-08.6 Suspension of Work

Section 1-08.6 is supplemented with the following:

(January 3, 2017)

Contract time may be suspended for the HMA mix design evaluation report or for procurement of critical materials (Procurement Suspension). In order to receive a Procurement Suspension, the Contractor shall within 21 calendar days after execution by the Contracting Agency, submit all HMA mix designs not already on the QPL according to Section 5-04.2(1) or place purchase orders for all materials deemed critical by the Contracting Agency for Physical Completion of the Contract. The Contractor shall provide a copy of the completed WSDOT Form 350-042 indicating the date the mix design was submitted, or

copies of purchase orders for the critical materials. Such purchase orders shall disclose the purchase order date and estimated delivery dates for such critical material.

The Contractor shall show the HMA mix design evaluation report or procurement of the critical materials listed below as activities in the Progress Schedule. If the approved Progress Schedule indicates that acceptance of the HMA mix designs or materials procurement are critical activities, and if the Contractor has provided documentation that purchase orders are placed for the critical materials within the prescribed 21 calendar days, then Contract time will be suspended upon Physical Completion of all critical work except that work dependent upon the below listed critical materials:

*** HP 14 x 89 pile ***

Charging of Contract time will resume upon the Contractor's receipt of a WSDOT mix design evaluation report or delivery of the critical materials to the Contractor, notification that the critical materials are ready for delivery to the Contractor from the Contracting Agency's Materials Laboratory, or *** 60 *** calendar days after execution by the Contracting Agency, whichever occurs first.

No additional Procurement Suspension will be provided if the Contractor's HMA mix designs did not meet Contract requirements and are resubmitted.

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.

1-09.9 Payments

(December 30, 2022 APWA GSP)

Section 1-09.9 is revised to read:

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

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

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

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose

of determining progress payments. The progress estimates are subject to change at any time prior to the calculation of the final payment.

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

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

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

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

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

Failure to perform obligations under the Contract by the Contractor may be decreed by the Contracting Agency to be adequate reason for withholding any payments until compliance is achieved.

Upon completion of all Work and after final inspection (Section 1-05.11), the amount due the Contractor under the Contract will be paid based upon the final estimate made by the Engineer and presentation of a Final Contract Voucher Certification to be signed by the Contractor. The Contractor's signature on such voucher shall be deemed a release of all claims of the Contractor unless a Certified Claim is filed in accordance with the requirements of Section 1-09.11 and is expressly excepted from the Contractor's certification on the Final Contract Voucher Certification. The date the Contracting Agency signs the Final Contract Voucher Certification constitutes the final acceptance date (Section 1-05.12).

If the Contractor fails, refuses, or is unable to sign and return the Final Contract Voucher Certification or any other documentation required for completion and final acceptance of the Contract, the Contracting Agency reserves the right to establish a Completion Date (for the purpose of meeting the requirements of RCW 60.28) and unilaterally accept the Contract. Unilateral final acceptance will occur only after the Contractor has been provided the opportunity, by written request from the Engineer, to voluntarily submit such documents. If voluntary compliance is not achieved, formal notification of the impending establishment of a Completion Date and unilateral final acceptance will be provided by email with delivery confirmation from the Contracting Agency to the Contractor, which will provide 30 calendar

days for the Contractor to submit the necessary documents. The 30-calendar day period will begin on the date the email with delivery confirmation is received by the Contractor. The date the Contracting Agency unilaterally signs the Final Contract Voucher Certification shall constitute the Completion Date and the final acceptance date (Section 1-05.12). The reservation by the Contracting Agency to unilaterally accept the Contract will apply to Contracts that are Physically Completed in accordance with Section 1-08.5, or for Contracts that are terminated in accordance with Section 1-08.10. Unilateral final acceptance of the Contract by the Contracting Agency does not in any way relieve the Contractor of their responsibility to comply with all Federal, State, tribal, or local laws, ordinances, and regulations that affect the Work under the Contract.

Payment to the Contractor of partial estimates, final estimates, and retained percentages shall be subject to controlling laws.

(March 13, 2012 APWA GSP)
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.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.1(1) Materials
Section 1-10.1(1) is supplemented with the following:

Structural fill meeting the requirements of the bid item Structural Fill may be used for temporary roadway embankment.

Eight-inch-thick crushed surfacing base course meeting the requirements of the bid item Crushed Surfacing Base Course shall be used for surfacing of the temporary road.

1-10.2 Traffic Control Management

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, temporary traffic control signals, 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.

Add the following new section to 1-10.3:
1-10.3(3)N Temporary Concrete Barrier, Temporary Drainage Pipe and Temporary Road Widening

The Traffic Control Plan includes Temporary Concrete Barrier Type 2, Temporary Impact Attenuators, 12" Temporary Drainage Pipe, and roadway widening. The temporary barrier shall be installed, maintained and removed per Section 6-10.3(5).

This work consists of constructing temporary 12" drainage pipe and roadway widening to maintain traffic on Hazel Dell Road. The temporary drainage pipe shall be installed, maintained and removed per Section 7-02

The temporary roadway widening shall be constructed within the clearing limits shown on the Plans. One lane of traffic shall be maintained on Hazel Dell Road, while the soldier pile retaining wall is constructed on the other side of the road.

The temporary roadway widening shall meet the following requirements:

1. The widening will provide a temporary road with a minimum clear width of 14 feet. The widening longitudinal slope and horizontal cross slopes shall match the existing pavement. The joint between the existing pavement and temporary roadway widening shall be flush.

2. Access shall be maintained for all driveways in the project area. This includes access for emergency vehicles.

3. The temporary road shall have traffic barrier on the retaining wall side extending a minimum of 30 feet beyond the excavation. Traffic barrier shall have AASHTO approved terminals or impact attenuators. Concrete barrier ends shall be AASHTO approved terminals or be shielded from traffic with inertial barriers (sand barrel arrays) or other approved impact attenuators in accordance with the WSDOT Standard Plans.

The Contractor shall maintain the temporary road widening in a safe condition throughout the time it is in use. Any damage to the temporary road shall be repaired immediately. The Contractor shall be available for call out for repairs at any time of day or night. The Contractor shall respond to such calls

and be on site within six hours to make the necessary repairs.

All temporary items shall be removed when it is no longer needed to maintain traffic on Hazel Dell Road. The Contractor shall restore the ground to pre-construction grades, except for areas designated for other improvements.

Temporary Widening Construction Quantities:

Item	Quantity
12 Inch Culvert	200 L.F.
Roadway Embankment	43 C.Y
Crushed Surfacing Base Course	62 Ton
Temporary Concrete Barrier	264L.F.
Temporary Impact Attenuators	As needed.

and all other items shown on the traffic control plan.

Signage for the temporary road shall be included in the bid item Project Temporary Traffic Control.

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: REPLACEMENT STAKING SERVICES

This bid item 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 3: MOBILIZATION

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

BID ITEM 4: 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. Quantity estimates have been provided for the purposes of bidding only. No adjustment to this lump sum bid item will be made.

BID ITEM 5: 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:

(*******)

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 0.1 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 6: 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 16 - 2.5'x2.5'x5' existing concrete retaining wall blocks. Contractor shall deliver all undamaged concrete blocks to the Cowlitz County's Castle Rock Shop located at 111 Gassman Road, Castle Rock. Cowlitz County will unload the blocks. Damaged blocks will be the property of the contractor.
2. Remove approximately 40 feet of 12" diameter culvert.

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.

BID ITEM 7: ROADWAY EXCAVATION, EMBANKMENT AND DISPOSAL INCLUDING HAUL

This bid item shall be accomplished in accordance with the Plans and Standard Specification Section 2-03, except as modified below. The bid quantity listed for this item is approximate and is for the purpose of bidding only. Overruns and underruns in this bid item shall not be cause for adjustment in the unit prices. Section 1-04.6 "Increased or Decreased Quantities" does not apply to this bid item.

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, removal of slide material, 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(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, sidewalks, curbs and gutters to be incorporated into the roadway embankment shall be cleaned of embankment materials and broken into individual fragments one foot or less in their greatest dimension and no part of any piece shall be within 3 feet of the top, side, or end surface of the embankment or any Structure. Materials not incorporated into the roadway embankment shall be disposed of in accordance with applicable local and state regulations.

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 an estimated 4 cubic yards of cut for driveway excavation and an estimated 0 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.

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.

BID ITEM 8: TRIMMING AND CLEANUP

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

BID ITEM 9: CONSTRUCTION GEOTEXTILE FOR SEPARATION

This (These) bid item(s) 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.

Construction Geotextile for Stabilization 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 10: 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:

	Percent Passing by Weight
Sieve Size	**3-inch Max**
12-inch square	99-100
3-inch square	99-100
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 11: 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

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 12: HMA CLASS 3/8 Inch PG 58H-22
BID ITEM 13: HMA CLASS 3/8 Inch PG 58H-22 FOR APPROACH
BID ITEM 14: 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 3*** 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 0.20	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. 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"		0.17 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 At any point	Ave. Depth Deviation 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 Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", ¾", ½", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-6%	+/- 8%
No. 8 Sieve	+/- 6%	+/-8%
No. 200 sieve	+/- 2.0%	+/- 3.0%

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

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

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

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

5-04.3(9)A Vacant

5-04.3(9)B Vacant

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

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

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

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

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

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

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

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

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

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors
For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a CPF using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	**Factor "f"**
All aggregate passing: 1½", 1", ¾", ½", ⅜" and No. 4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids (Va) (where applicable)	20

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

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

5-04.3(9)C5 Vacant

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

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

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

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

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

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

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

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

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

5-04.3(10) HMA Compaction Acceptance

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

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

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

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

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

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

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

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

Test Results

For a sublot that has been tested with a nuclear density gauge that did not meet the minimum of 92 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus subject

to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative density of the sublot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the sublot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

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

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

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

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 sublot shall be equal to one day's production or 400 tons, whichever is less except that the final sublot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per sublot per WSDOT T 738.

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

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

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

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

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

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

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a sublot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

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

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

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

5-04.3(11)B Rejection by Contractor

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

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

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

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

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

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

5-04.3(11)E Rejection - An Entire Sublot

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this sublot will be obtained. These additional samples and the original sublot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)F Rejection - A Lot in Progress

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

1. When the CPF of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
3. When either the PF for any constituent or the CPF of a lot in progress is less than 0.75.

5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

An entire lot with a CPF of less than 0.75 will be rejected.

5-04.3(12) Joints

5-04.3(12)A HMA Joints

5-04.3(12)A1 Transverse Joints

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed, and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

5-04.3(12)A2 Longitudinal Joints

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the maximum aggregate size or more than ½ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

5-04.3(12)B Bridge Paving Joint Seals

Bridge Paving Joint Seals shall be in accordance with Section 5-03.

5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than ⅛ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than ¼ inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, the pavement surface shall be corrected by one of the following methods:

1. Removal of material from high places by grinding with an approved grinding machine, or

2. Removal and replacement of the wearing course of HMA, or

3. By other method approved by the Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of $500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving and Pre-Planing Briefing (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing Bituminous Pavement

The planing plan must be approved by the Engineer and a pre-planing meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planing submittals.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition, the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. Intersections:

    a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).

    b. When planing or paving and related construction must occur in an intersection, consider

scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.

c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.

d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.

e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.

2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.

3. Permanent pavement marking must comply with Section 8-22.

5-04.3(14)B2 Submittals - Planing Plan and HMA Paving Plan

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic control plan must show where police officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and

scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.

2. A copy of each intersection's traffic control plan.

3. Haul routes from supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.

4. Names and locations of HMA supplier facilities to be used.

5. List of all equipment to be used for paving.

6. List of personnel and associated job classification assigned to each piece of paving equipment.

7. Description (geometric or narrative) of the scheduled sequence of planing and of paving and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordination's 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 15: GRAVEL BACKFILL FOR WALL
These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 6-02. 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.

BID ITEM 16: SHAFT – 30 IN. DIAMETER
BID ITEM 17: FURNISHING SOLDIER PILE – HP14X89
BID ITEM 18: PRECAST CONCRETE LAGGING
BID ITEM 19: PREFABRICATED DRAINAGE MAT
BID ITEM 20: REMOVAL OF SOLDIER PILE SHAFT OBSTRUCTIONS
These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 6-16, except as modified below.

6-16 SOLDIER PILE AND SOLDIER PILE TIEBACK WALLS

6-16.2 Materials
Section 6-16.2 is supplemented with the following:

(*******)
A WSDOT inspection stamp is required on all precast concrete lagging.

6-16.3 Construction Requirements

6-16.3(1) Quality Assurance
Add the following to the first paragraph of Section 6-16.3(1)

The distance between the 8" diameter extra strong pipe between adjacent piles, or between adjacent piles without the extra strong pipe shall be such that there is 2" of minimum bearing of the concrete lagging on the pile.

6-16.3(2) Submittals
Paragraph 3 of this Section which begins with "The Contractor shall submit Type 2E Working Drawings..." and its associated subparagraphs shall be deleted and replaced with the following:

(*******)
The Contractor shall submit Type 2 Working Drawings consisting of the details for the precast concrete fascia panels, including overall panel dimensions and reinforcing bar details, and bending diagrams.

6-16.3(5) Backfilling Shaft
The first paragraph Of Section 6-16.3(5) is revised to read:

(*******)
The excavated shaft shall be backfilled with controlled density fill (CDF), pumpable lean concrete, or class 4000P concrete, as shown on the plans, and subject to the following requirements:

Add the following to the numbered list in Section 6-16.3(5):

(*******)
6. Place concrete Class 4000P in accordance with Section 6-02.3(6).

6-16.3(6) Designing and Installing Lagging and Installing Permanent Ground Anchors
Section 6-16.3(6), including its subparagraphs, shall be deleted in its entirety and replaced with the following:

(*******)
6-16.3(6) Installing Precast Concrete Lagging and Permanent Ground Anchors.
PC concrete lagging shall be placed from the bottom of excavation to the top. Backfill shall be placed such that no more than one row of lagging is above the backfill. Backfill layers shall be placed in accordance With Section 2-03.3(14), except that all layers shall be compacted to 90 percent of maximum density.

The excavation and removal of CDF and pumpable lean concrete for the concrete lagging installation shall proceed in advance of the lagging and shall not begin until the CDF and pumpable lean concrete are of sufficient strength that the material remains in place during excavation and fascia installation. If the CDF or pumpable lean concrete separates from the soldier pile, or caves or spans from around the soldier pile, the Contractor shall discontinue excavation and lagging installation operations until the CDF and pumpable lean concrete is completely set. The bottom of the excavation in front of the wall shall be level. Excavation shall conform to Section 2-03.

Installing, stressing, and testing the permanent ground anchors shall be in accordance With Section 6-17.

The lagging shall be installed from the top of the soldier pile proceeding downward. The lagging shall make direct contact with the soil. When and where the lagging is not in full contact with the soil being retained, either the lagging shall be wedged back to create contact or the void shall be filled with a free-draining material.

When utilizing lagging in fill situations, the backfill layers shall be placed in accordance With Section 2-03.3(14), except that all layers shall be compacted to 90 percent of maximum density.

6-16.3(8) Concrete Fascia Panel
Section 6-16.3(8) shall be deleted in its entirety and replaced with the following:

(*******)
6-16.3(8) Precast Concrete Lagging
The Contractor shall construct concrete lagging as shown in the Plans and in accordance with section 6-02.3(28).

6-16.5 Payment
Paragraph 10 of Section 6-16.5, which begins with "All costs in connection with constructing the concrete fascia..." shall be deleted and replaced with the following paragraph.

(*******)
All costs in connection with providing and installing the concrete lagging as specified shall be included in the unit contract price per square foot for "Precast Concrete Lagging", including leveling base course, fabrication, all steel reinforcing bars, angles, studs, and welding the concrete lagging to the soldier piles.

BID ITEM 21: PERMANENT GROUND ANCHOR
BID ITEM 22: PERMANENT GROUND ANCHOR PERFORMANCE TEST
These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 6-17, except as modified below.

6-17 PERMANENT GROUND ANCHORS
6-17.2 Materials
Section 6-17.2 is supplemented with the following:

(*******)
(November 2, 2022)
Permanent Ground Anchor Materials and Components
A permanent ground anchor system is a structural system used to transfer tensile loads to soil or rock. A permanent ground anchor system may also be specified in the Plans as an anchor, a ground

anchor, or a tieback. A permanent ground anchor system includes all prestressing steel, anchorage devices, grout, coatings, sheathings and couplers if used.

The Contractor shall either select a permanent ground anchor system from the Qualified Products List or submit a Type 2 Working Drawing consisting of the following information:

1. Catalogue cuts or Manufacturer's Certificates of Compliance for anchorage covers, bond breaker, centralizers, corrosion inhibiting grease, end caps, grout admixtures, and strand tendon spacers.

2. Manufacturer's Certificates of Compliance for anchor heads, anchor head wedges, bar tendon nuts, bar tendon couplers, tendon encapsulation tubing, trumpet assemblies, and bar tendons or strand tendons. The Manufacturer's Certificates of Compliance for the anchorhead wedges (grippers), and bar tendon nuts and couplers, shall confirm compliance with the specified strength requirements.

If the Contractor selects a permanent ground anchor system from the Qualified Products List (QPL), the Contractor shall submit a Type 1 Working Drawing consisting of a certificate from the permanent ground anchor system fabricator/supplier confirming that the material specifications of the permanent ground anchor system components as furnished conform to those specified in the QPL.

Component Material Specifications

Anchorage covers shall have a minimum thickness of 0.20 inches and shall conform to either ASTM A 53 for pipe, or ASTM A 500 for tubing, or ASTM A 36, ASTM A 529, ASTM A 572, ASTM A 588, or AASHTO M 270 for fabricated steel.

Anchorheads shall conform to either ASTM A 36, AASHTO M 169 Grades 1040 or 1045, ASTM A 521 Grade 1045, ASTM A 576 Grade 1045, or ASTM A 536 Grade 80-55-06.

Bearing plates shall conform to either ASTM A 36, ASTM A 572, ASTM A 588, AASHTO M 270, ASTM A 529, or ASTM A 536.

Anchorhead wedges (grippers) shall conform to AASHTO M 169 Grade 12L14, case hardened 0.012 to 0.015 inches deep to Rockwell C 59 to 65.

Bar tendon nuts shall conform to either ASTM A 29 Grade C1045, ASTM A 521 Class CF, AASHTO M 169 Grades 1117 or 1144, or ASTM A 536 Grade 100-70-03, and shall be capable of developing 100 percent of the GUTS of the bar tendon.

Bondbreaker shall conform to the requirements of Section 4.7 of the Post-Tensioning Institute "Recommendations for Prestressed Rock and Soil Anchors", and shall be fabricated from a smooth plastic tube or pipe having the following properties:

1. Resistant to chemical attack from aggressive environments, grout or grease;

2. Resistant to aging by ultra-violet light;
3. Fabricated from material nondetrimental to the tendon;
4. Capable of withstanding abrasion, impact, and bending during handling and installation;
5. Enable the tendon to elongate during testing and stressing; and
6. Allow the tendon to remain unbonded after lock-off.

Centralizers shall be fabricated from plastic, steel, or material which is nondetrimental to the prestressing steel. Wood shall not be used.

Corrosion inhibiting grease shall conform to the requirements of Section 3.2.5 of the Post-Tensioning Institute, "Specification for Unbonded Single Strand Tendons".

Couplers for bar tendons, if required, shall be furnished by the manufacturer of the bar tendons and shall be AASHTO M 169 Grades 1045, 1117 or 1144, ASTM A 519 Grade 1026, or equivalent steel developing 100 percent of the GUTS of the bar tendon without evidence of any failure. Couplers shall not be placed in the bond zone. Couplers for strand tendons will not be allowed.

End caps shall conform to ASTM D 3350 Class PE324420C, Class PE334410C, or Class PE335400C, ASTM D 1248, and AASHTO M 252, ASTM D 1784 Class 1346B, ASTM A 653, or ASTM A 36.

Grout shall be a neat cement grout or a sand-cement grout conforming to Section 9-20.3(4). The compressive strength for the grout shall be as required by the tieback manufacturer. Grout components shall be as follows:

Admixtures shall conform to the requirements of Section 9-23.6. Expansive admixtures shall only be added to the grout used for filling sealed encapsulations, trumpets and anchorage covers. Accelerators will not be permitted. Admixtures shall be compatible with prestressing steels and mixed in accordance with the manufacturer's recommendations.

Aggregates shall conform to the requirements of Section 9-03.

Cement shall conform to the requirements of Section 9-01, and shall not contain lumps or other indications of hydration.

Prestressing steel shall consist of either bar tendons with an ultimate tensile strength of 150 ksi conforming to AASHTO M 275 Type II, or strand tendons with an ultimate tensile strength of 270 ksi conforming to AASHTO M 203. The Contractor shall submit Type 1 Working Drawings consisting of certified mill test results and typical stress-strain curves along with samples from each heat, properly marked, for the prestressing steel. The typical stress-strain curve shall be obtained by conventional industry standard practices. The guaranteed ultimate strength, yield strength, elongation, and composition shall be specified.

Strand tendon spacers shall be fabricated from plastic, steel, or material which is nondetrimental to the prestressing steel. Wood shall not be used.

Tendon encapsulation, when specified in the Plans to provide additional corrosion protection, shall be fabricated from one of the following:

1. High density corrugated polyethylene (PE) tubing conforming to the requirements of ASTM D 3350 Class PE334410C, Class PE335520C or Class PE335400C, ASTM D 1248, and AASHTO M 252 and having a nominal wall thickness of 40 mils or greater.

2. Corrugated, polyvinyl chloride (PVC) tubing conforming to ASTM D 1784, Class 13464-B, and having a nominal wall thickness of 40 mils or greater.

Trumpet providing the transition from the bearing plate to the unbonded length corrosion protection shall be fabricated from a steel pipe or tube conforming to the requirements of ASTM A 53 for pipe or ASTM A 500 for tubing. The trumpet shall have a minimum wall thickness of 0.20 inches, and shall be seal welded to the bearing plate. The seal weld shall be visually inspected only, in accordance with Section 6-03.3(25)A.

6-17.3(8)B Performance Testing

The performance test schedule following the second paragraph of Section 6-17.3(8)B is revised to read:

(*******)
(January 3, 2011)
Performance Test Schedule

Load
AL
0.25FDL
AL
0.25FDL
0.50FDL
AL
0.25FDL
0.50FDL
0.75FDL
AL
0.25FDL
0.50FDL
0.75FDL
1.00FDL
AL
0.25FDL
0.50FDL

0.75FDL
1.00FDL
1.15FDL
AL
Jack to lock-off load

Where: AL - is the alignment load
FDL - is the factored design load

BID ITEM 23: DRAIN PIPE, 4-IN. DIAM.

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

7-01.1 Description

(*******)
Add the following to Section 7-01.1:

The Drain Pipe, 4-Inch Diameter bid item consists of installing drain pipe and a prefabricated universal tee outlet midspan between each pile through a blockout in the concrete lagging.

7-01.2 Materials

(*******)
Delete paragraph two of Section 7-01.2, which begins, "Drain pipes may be..." and replace with the following:

All drain pipe shall be corrugated polyethylene drain pipe type S (smooth inner liner) meeting the requirements of Section 9-05.1(6), 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 of the type and size specified shall be full pay for furnishing and installing the drain 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, prefabricated universal tee outlet, compaction and all other work essential for the completion of the installation to the required lines and grades.

BID ITEM 24: CORRUGATED POLYETHYLENE CULV. PIPE 12-IN DIAM.

These bid items shall be accomplished in accordance with the Plans and Standard Specification Section 7-02 and 7-08, except as modified below.

7-02.3 Construction Requirements

(*******)

Add the following to Section 7-08, which is referenced by Section 7-02.3:

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.

7-02.5 Payment

(*******)

Add the following to Section 7-02.5:

The unit contract price per linear foot for culvert 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.

The unit contract price per linear foot for Temporary 12-in Culvert shall be full pay for furnishing and installing the pipe. Installation shall include excavation, fittings, jointing materials, beveling, backfilling to existing grade or subgrade, compaction, removal of temporary culvert and all other items essential for completion of the installation to the required lines and grades. Temporary culvert will become the property of the contractor when removed and hauled off-site.

BID ITEM 25: EROSION CONTROL AND WATER POLLUTION PREVENTION

This bid item shall be accomplished in accordance with the Plans, Standard Specification Section 8-01, and 8-02except 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(12) Compost Sock

Add the following to Section 8-01.3(12)

Compost sock shall be a minimum of twelve-inch diameter.

8-01.5 Payment

Supplement Section 8-01.5(1) with the following:

The Erosion Control and Water Pollution Prevention bid item includes approximately 185 square yards of biodegradable erosion control blanket, 45 linear feet of check dam, 207 linear feet of high visibility silt fence, 150 linear feet of compost sock, 93 square yards of topsoil type C, and 0.10 acre of seeding and mulching. These quantities have been provided for the purposes of bidding only.

8-02.3 Construction Requirements

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
Lolium multiflorum **Annual Ryegrass**	8.73
Total Pounds PLS Per Acre	80.00

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

Mulching

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

This section is revised to read as follows:

Topsoil Type C, Seeding, Fertilizing, and Mulching are to be included in the lump sum price for "Erosion Control and Water Pollution Prevention".

BID ITEM 26: BEAM GUARDRAIL TYPE 1
BID ITEM 27: REMOVING GUARDRAIL
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.

8-11.3(1)D) Removing Guardrail and Guardrail Anchor

Add the following to Section 8-11.3(1)D:

(*******)

All guardrail and associated posts, anchors, and terminal sections, as determined salvageable by the Engineer, shall be removed by the Contractor and delivered to the Cowlitz County Central Shop located at ** Castle Rock Shop located at **111 Gassman Road, Castle Rock Washington 98611**. All guardrail determined to be non-salvageable by the Engineer shall become property of the Contractor to be disposed of off-site in accordance with Section 2-03.3(7)C.

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.

Delete paragraph six of Section 8-11.4, which begins, "Measurement of removal of guardrail will be..." and replace with the following:

(*******)

Measurement of removal of guardrail will be by the linear foot measured along the line of guardrail removed including transition sections, expansion sections, guardrail anchors, and terminal sections.

Add the following to paragraph seven of Section 8-11.4, which begins, "Measurement of removal of guardrail anchors will be...":

(*******)

Guardrail anchors that are within the limits of removal of guardrail will not be measured, as they are included in the bid item for removal of guardrail.

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 28: MAILBOX SUPPORT, TYPE 1

This bid item 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 29: PAINT LINE

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

(November 20, 2023)
Standard Plans

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01, effective October 23, 2023, is made a part of this contract.

The Standard Plans are revised as follows:

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-60.40
Note 2 reference to "6-09.3(6)" is revised to read "6-21.3(7)".

B-90.40
Valve Detail – DELETED

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
Wall Type 1 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT Bridge Design Manual (BDM) and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.15
Wall Type 2 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

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
Wall Type 7 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.45
Wall Type 8 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the revisions stated in the 11/3/15 Bridge Design memorandum.

F-10.18
Note 2, "Region Traffic engineer approval is needed to install a truck apron lower than 3"." - DELETED

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-20.26
Add Note 1, "1. One accessible pedestrian pushbutton station per pedestrian pushbutton post."

J-20.16
View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

J-21.10
Sheet 1 of 2, Elevation View, Round Concrete Foundation Detail, callout – "ANCHOR BOLTS ~ ¾" (IN) x 30" (IN) FULL THREAD ~ THREE REQ'D. PER ASSEMBLY" IS REVISED TO READ: "ANCHOR BOLTS ~ ¾" (IN) x 30" (IN) FULL THREAD ~ FOUR REQ'D. PER ASSEMBLY"
Sheet 1 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR Delete "(TYP.)" from the 2 ½" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.
Sheet 1 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 ½" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.
Sheet 2 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 ½" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.
Sheet 2 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 ½" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.
Detail F, callout, "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 3)" is revised to read; "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 1)"
Detail F, callout, "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Four Required (See Note 4)" is revised to read; "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Three Required (See Note 2)"

J-21.15
Partial View, callout, was – LOCK NIPPLE ~ 1 ½" DIAM., is revised to read; CHASE NIPPLE ~ 1 ½" (IN) DIAM.

J-21.16
Detail A, callout, was – LOCKNIPPLE, is revised to read; CHASE NIPPLE

J-22.15
Ramp Meter Signal Standard, elevation, dimension 4' - 6" is revised to read; 6'-0"
(2x) Detail A, callout, was – LOCK NIPPLE ~ 1 ½" DIAM. is revised to read; CHASE NIPPLE ~ 1 ½" (IN) DIAM.

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
Sheet 1, General Note 8, third sentence – was; "For traffic barrier having no deflection distance, the fence shall be placed a minimum horizontal distance of 3' – 6' as measured form the top front face of the barrier." Is revised to read; "For traffic barrier having no deflection distance, the fence shall be placed a minimum horizontal distance of 2' – 6" as measured form the top front face of the barrier."

Sheet 2, Reinforcing Steel Bending Diagram, (mark) B detail, callout – "128 deg." is revised to read: "123 deg.", callout – "51 deg." is revised to read: "57 deg."

M-40.10
Guide Post Type ~ Reflective Sheeting Applications Table, remove reference - "(SEE NOTE 5)"

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00 ..... 8/7/07	A-30.35-00 ..... 10/12/07	A-50.10-01 ..... 8/17/21
A-10.20-00 ..... 10/5/07	A-40.00-01 ..... 7/6/22	A-50.40-01 ..... 8/17/21
A-10.30-00 ..... 10/5/07	A-40.10-04 ..... 7/31/19	A-60.10-03 ..... 12/23/14
A-20.10-00 ..... 8/31/07	A-40.15-00 ..... 8/11/09	A-60.20-03 ..... 12/23/14
A-30.10-00 ..... 11/8/07	A-40.20-04 ..... 1/18/17	A-60.30-01 ..... 6/28/18
A-30.30-01 ..... 6/16/11	A-40.50-03 ..... 9/12/23	A-60.40-00 ..... 8/31/07
B-5.20-03 ..... 9/9/20	B-30.50-03 ..... 2/27/18	B-75.20-03 ..... 8/17/21
B-5.40-02 ..... 1/26/17	B-30.60-00 ..... 9/9/20	B-75.50-02 ..... 3/15/22

B-5.60-02 ..... 1/26/17
B-10.20-03 ..... 8/23/23
B-10.40-02 ..... 8/17/21
B-10.70-03 ..... 8/23/23
B-15.20-01 ..... 2/7/12
B-15.40-01 ..... 2/7/12
B-15.60-02 ..... 1/26/17
B-20.20-02 ..... 3/16/12
B-20.40-04 ..... 2/27/18
B-20.60-03 ..... 3/15/12

B-25.20-02 ..... 2/27/18
B-25.60-03 ..... 8/23/23
B-30.05-00 ..... 9/9/20
B-30.10-03 ..... 2/27/18
B-30.15-00 ..... 2/27/18
B-30.20-04 ..... 2/27/18
B-30.30-03 ..... 2/27/18
B-30.40-03 ..... 2/27/18
B-30.70-04 ..... 2/27/18
B-30.80-01 ..... 2/27/18
B-30.90-02 ..... 1/26/17
B-35.20-00 ..... 6/8/06
B-35.40-01 ..... 8/23/23
B-40.20-00 ..... 6/1/06
B-40.40-02 ..... 1/26/17
B-45.20-01 ..... 7/11/17
B-45.40-01 ..... 7/21/17

B-50.20-00 ..... 6/1/06
B-55.20-03 ..... 8/17/21
B-60.20-02 ..... 9/9/20
B-60.40-01 ..... 2/27/18
B-65.20-01 ..... 4/26/12
B-65.40-00 ..... 6/1/06
B-70.20-01 ..... 3/15/22
B-70.60-01 ..... 1/26/17
B-75.60-00 ..... 6/8/06
B-80.20-00 ..... 6/8/06
B-80.40-00 ..... 6/1/06
B-85.10-01 ..... 6/10/08
B-85.20-00 ..... 6/1/06
B-85.30-00 ..... 6/1/06
B-85.40-00 ..... 6/8/06
B-85.50-01 ..... 6/10/08
B-90.10-00 ..... 6/8/06
B-90.20-00 ..... 6/8/06
B-90.30-00 ..... 6/8/06
B-90.40-01 ..... 1/26/17
B-90.50-00 ..... 6/8/06
B-95.20-02 ..... 8/17/21
B-95.40-01 ..... 6/28/18

C-1 ..... 9/8/22
C-1b 10/12/23
C-1d 10/31/03
C-2c 8/12/19
C-4f 8/12/19
C-6a 9/8/22
C-7 ..... 9/8/22
C-7a 9/8/22
C-20.10-09 ..... 10/12/23
C-20.14-05 ..... 9/8/22
C-20.15-03 ..... 10/12/23
C-20.18-04 ..... 9/8/22
C-20.40-10 ..... 10/12/23
C-20.41-04 ..... 8/22/22
C-20.42-06 ..... 10/12/23
C-20.43-00 ..... 8/22/22
C-20.45.03 ..... 9/8/22
C-22.16-08 ..... 10/17/23
C-22.40-10 ..... 10/16/23
C-22.45-06 ..... 9/8/22
C-23.70-01 ..... 10/16/23
C.24.10-04 ..... 10/16/23
C-24.15-00 ..... 3/15/22
C-25.20-07 ..... 8/20/21
C-25.22-06 ..... 8/20/21
C-25.26-05 ..... 8/20/21
C-25.30-01 ..... 8/20/21
C-25.80-05 ..... 8/12/19
C-60.10-03 ..... 10/16/23
C-60.15-00 ..... 8/17/21
C-60.20-01 ..... 9/8/22
C-60.30-01 ..... 8/17/21
C-60.40-00 ..... 8/17/21
C-60.45-00 ..... 8/17/21
C-60.50-00 ..... 8/17/21
C-60.60-00 ..... 8/17/21
C-60.70-01 ..... 9/8/22
C-60.80-01 ..... 9/8/22
C-70.15-00 ..... 8/17/21
C-70.10-04 ..... 10/16/23
C-75.10-02 ..... 9/16/20
C-75.20-03 ..... 8/20/21
C-75.30-03 ..... 8/20/21
C-80.10-03 ..... 10/16/23
C-80.20-01 ..... 6/11/14
C-80.30-02 ..... 8/20/21
C-80.40-01 ..... 6/11/14
C-85.10-00 ..... 4/8/12
C-85.11-01 ..... 9/16/20
C-85.15-03 ..... 10/17/23
C-85-18-03 ..... 9/8/22
C-81.10-00 ..... 9/12/23
C-81.15-00 ..... 9/12/23

D-2.36-03 ..... 6/11/14
D-2.46-02 ..... 8/13/21
D-2.84-00 ..... 11/10/05
D-2.92-01 ..... 4/26/22
D-3.09-00 ..... 5/17/12
D-3.10-01 ..... 5/29/13
D-3.11-03 ..... 6/11/14
D-4 ..... 12/11/98
D-6 ..... 6/19/98
D-10.10-01 ..... 12/2/08
D-10.15-01 ..... 12/2/08
D-10.20-01 ..... 8/7/19
D-10.25-01 ..... 8/7/19
D-10.30-00 ..... 7/8/08
D-10.35-00 ..... 7/8/08
D-10.40-01 ..... 12/2/08
D-10.45-01 ..... 12/2/08
D-20.10-00 ..... 10/9/23

E-1 ..... 2/21/07
E-2 ..... 5/29/98
E-4 ..... 8/27/03
E-4a 8/27/03
E-20.10-00 ..... 9/12/23
E-20.20-00 ..... 10/4/23

F-10.12-04 ..... 9/24/20
F-10.16-00 ..... 12/20/06
F-10.18-03 ..... 3/28/22
F-10.40-04 ..... 9/24/20
F-10.42-00 ..... 1/23/07
F-10.62-02 ..... 4/22/14
F-10.64-03 ..... 4/22/14
F-30.10-04 ..... 9/25/20
F-40.12-03 ..... 6/29/16
F-40.14-03 ..... 6/29/16
F-40.15-04 ..... 9/25/20
F-40.16-03 ..... 6/29/16
F-45.10-04 ..... 10/16/23
F-80.10-04 ..... 7/15/16

G-10.10-00 ..... 9/20/07
G-20.10-03 ..... 8/20/21
G-22.10-04 ..... 6/28/18
G-24.10-00 ..... 11/8/07
G-24.20-01 ..... 2/7/12
G-24.30-02 ..... 6/28/18
G-24.40-07 ..... 6/28/18
G-24.50-05 ..... 8/7/19
G-24.60-05 ..... 6/28/18
G-25.10-05 ..... 9/16/20
G-26.10-00 ..... 7/31/19
G-30.10-04 ..... 6/23/15
G-50.10-03 ..... 6/28/18
G-90.10-03 ..... 7/11/17
G-90.20-05 ..... 7/11/17
G-90.30-04 ..... 7/11/17
G-95.10-02 ..... 6/28/18
G-95.20-03 ..... 6/28/18
G-95.30-03 ..... 6/28/18

H-10.10-00 ..... 7/3/08
H-10.15-00 ..... 7/3/08
H-30.10-00 ..... 10/12/07
H-32.10-00 ..... 9/20/07
H-60.10-01 ..... 7/3/08
H-60.20-01 ..... 7/3/08
H-70.10-02 ..... 8/17/21
H-70.20-02 ..... 8/17/21

I-10.10-01 ..... 8/11/09
I-30.10-02 ..... 3/22/13
I-30.15-02 ..... 3/22/13
I-30.16-01 ..... 7/11/19
I-30.17-01 ..... 6/12/19
I-30.20-00 ..... 9/20/07
I-30.30-02 ..... 6/12/19
I-30.40-02 ..... 6/12/19
I-30.60-02 ..... 6/12/19
I-40.10-00 ..... 9/20/07
I-40.20-00 ..... 9/20/07
I-50.20-02 ..... 7/6/22
I-60.10-01 ..... 6/10/13
I-60.20-01 ..... 6/10/13
I-80.10-02 ..... 7/15/16

J-05.50-00 ..... 8/30/22
J-10 ..... 7/18/97
J-10.10-04 ..... 9/16/20
J-10.12-00 ..... 9/16/20
J-10.14-00 ..... 9/16/20
J-10.15-01 ..... 6/11/14
J-10.16-02 ..... 8/18/21
J-10.17-02 ..... 8/18/21
J-10.18-02 ..... 8/18/21
J-10.20-04 ..... 8/18/21
J-10.21-02 ..... 8/18/21
J-10.22-03 ..... 10/4/23
J-10.25-00 ..... 7/11/17
J-10.26-00 ..... 8/30/22
J-12.15-00 ..... 6/28/18
J-12.16-00 ..... 6/28/18
J-15.10-01 ..... 6/11/14
J-15.15-02 ..... 7/10/15
J-26.20-01 ..... 6/28/18
J-27.10-01 ..... 7/21/16
J-27.15-00 ..... 3/15/12
J-28.01-00 ..... 8/30/22
J-28.10-02 ..... 8/7/19
J-28.22-00 ..... 8/07/07
J-28.24-02 ..... 9/16/20
J-28.26-01 ..... 12/02/08
J-28.30-03 ..... 6/11/14
J-28.40-02 ..... 6/11/14
J-28.42-01 ..... 6/11/14
J-28.43-01 ..... 6/28/18
J-28.45-03 ..... 7/21/16
J-28.50-03 ..... 7/21/16
J-28.60-03 ..... 8/27/21
J-28.70-04 ..... 8/30/22
J-29.10-02 ..... 8/26/22
J-29.15-01 ..... 7/21/16
J-50.10-01 ..... 7/31/19
J-50.11-02 ..... 7/31/19
J-50.12-02 ..... 8/7/19
J-50.13-01 ..... 8/30/22
J-50.15-01 ..... 7/21/17
J-50.16-01 ..... 3/22/13
J-50.18-00 ..... 8/7/19
J-50.19-00 ..... 8/7/19
J-50.20-00 ..... 6/3/11
J-50.25-00 ..... 6/3/11
J-50.30-00 ..... 6/3/11
J-60.05-01 ..... 7/21/16
J-60.11-00 ..... 5/20/13
J-60.12-00 ..... 5/20/13
J-60.13-00 ..... 6/16/10
J-60.14-01 ..... 7/31/19
J-75.10-02 ..... 7/10/15
J-75.20-01 ..... 7/10/15

J-20.01-00 ..... 8/30/22
J-20.10-05 ..... 10/4/23
J-20.11-03 ..... 7/31/19
J-20.15-03 ..... 6/30/14
J-20.16-02 ..... 6/30/14
J-20.20-02 ..... 5/20/13
J-20.26-01 ..... 7/12/12
J-21.10-04 ..... 6/30/14
J-21.15-01 ..... 6/10/13
J-21.16-01 ..... 6/10/13
J-21.17-01 ..... 6/10/13
J-21.20-01 ..... 6/10/13
J-22.15-02 ..... 7/10/15
J-22.16-03 ..... 7/10/15
J-26.10-03 ..... 7/21/16
J-26.15-01 ..... 5/17/12
J-29.16-02 ..... 7/21/16
J-30.10-01 ..... 8/26/22
J-40.01-00 ..... 8/30/22
J-40.05-00 ..... 7/21/16
J-40.10-04 ..... 4/28/16
J-40.20-03 ..... 4/28/16
J-40.30-04 ..... 4/28/16
J-40.35-01 ..... 5/29/13
J-40.36-02 ..... 7/21/17
J-40.37-02 ..... 7/21/17
J-40.38-01 ..... 5/20/13
J-40.39-00 ..... 5/20/13
J-40.40-02 ..... 7/31/19
J-45.36-00 ..... 7/21/17
J-50.05-00 ..... 7/21/17
J-75.30-02 ..... 7/10/15
J-75.50-00 ..... 8/30/22
J-75.55-00 ..... 8/30/22
J-80.05-00 ..... 8/30/22
J-80.10-01 ..... 8/18/21
J-80.12-00 ..... 8/18/21
J-80.15-00 ..... 6/28/18
J-81.10-02 ..... 8/18/21
J-81.12-00 ..... 9/3/21
J-84.05-00 ..... 8/30/22
J-86.10-00 ..... 6/28/18
J-90.10-03 ..... 6/28/18
J-90.20-03 ..... 6/28/18
J-90.21-02 ..... 6/28/18
J-90.50-00 ..... 6/28/18

K-70.20-01 ..... 6/1/16
K-80.10-02 ..... 9/25/20
K-80.32-00 ..... 8/17/21
K-80.34-00 ..... 8/17/21
K-80.35-01 ..... 9/16/20
K-80.37-01 ..... 9/16/20

L-5.10-01..... 7/17/23
L-5.15-00..... 9/19/22
L-10.10-02..... 6/21/12
L-20.10-03 ..... 7/14/15
L-30.10-02 ..... 6/11/14
L-40.15-01 ..... 6/16/11
L-40.20-02 ..... 6/21/12
L-70.10-01 ..... 5/21/08
L-70.20-01 ..... 5/21/08

M-1.20-04 ..... 9/25/20
M-1.40-03 ..... 9/25/20
M-1.60-03 ..... 9/25/20
M-1.80-03 ..... 6/3/11
M-2.20-03 ..... 7/10/15
M-2.21-00 ..... 7/10/15
M-3.10-04 ..... 9/25/20
M-3.20-04 ..... 8/2/22
M-3.30-04 ..... 9/25/20
M-3.40-04 ..... 9/25/20
M-3.50-03 ..... 9/25/20
M-5.10-03 ..... 9/25/20
M-7.50-01 ..... 1/30/07
M-9.50-02 ..... 6/24/14
M-9.60-00..... 2/10/09
M-11.10-04..... 8/2/22
M-12.10-03..... 8/2/22
M-15.10-02..... 7/17/23
M-17.10-02..... 7/3/08
M-20.10-04..... 8/2/22
M-20.20-02..... 4/20/15
M-20.30-04..... 2/29/16
M-20.40-03..... 6/24/14
M-20.50-02..... 6/3/11
M-24.20-02..... 4/20/15
M-24.40-02..... 4/20/15
M-24.60-04..... 6/24/14
M-24.65-00..... 7/11/17
M-24.66-00..... 7/11/17
M-40.10-04.... 10/17/23
M-40.20-00.... 10/12/07
M-40.30-01..... 7/11/17
M-40.40-00..... 9/20/07
M-40.50-00..... 9/20/07
M-40.60-00..... 9/20/07
M-60.10-01..... 6/3/11
M-60.20-03..... 8/17/21
M-65.10-03..... 8/17/21
M-80.10-01..... 6/3/11
M-80.20-00..... 6/10/08
M-80.30-00..... 6/10/08

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: 05/01/2024

County	Trade	Job Classification	Wage	Holiday	Overtime	Note	*Risk Class
Cowlitz	Asbestos Abatement Workers	Journey Level	$54.85	6Z	1M		View
Cowlitz	Boilermakers	Journey Level	$74.29	5N	1C		View
Cowlitz	Brick Mason	Brick Finisher	$45.83	5A	1B		View
Cowlitz	Brick Mason	Caulker-Pointer-Cleaner	$71.24	5A	1B		View
Cowlitz	Brick Mason	Journey Level	$71.24	5A	1B		View
Cowlitz	Building Service Employees	Janitor	$16.28		1		View
Cowlitz	Building Service Employees	Shampooer	$16.28		1		View
Cowlitz	Building Service Employees	Waxer	$16.28		1		View
Cowlitz	Building Service Employees	Window Cleaner	$16.28		1		View
Cowlitz	Cabinet Makers (In Shop)	Journey Level	$16.28		1		View
Cowlitz	Carpenters	Acoustical Worker	$65.45	5A	1B		View
Cowlitz	Carpenters	Bridge & Highway Carpenter	$66.05	5A	1B		View
Cowlitz	Carpenters	Floor Layer And Floor Finishers	$65.45	5A	1B		View
Cowlitz	Carpenters	Journey Level	$65.45	5A	1B		View
Cowlitz	Carpenters	Scaffold/Shoring Erecting & Dismantling	$65.45	7E	4X	8N	View
Cowlitz	Carpenters	Stationary Power Saw	$65.45	5A	1B		View
Cowlitz	Cement Masons	Application of all Composition Mastic	$72.87	15J	4U		View
Cowlitz	Cement Masons	Application of all Epoxy Material	$72.37	15J	4U		View
Cowlitz	Cement Masons	Application of all Plastic Material	$72.87	15J	4U		View
Cowlitz	Cement Masons	Application of Sealing Compound	$72.37	15J	4U		View
Cowlitz	Cement Masons	Application of Underlayment	$72.87	15J	4U		View
Cowlitz	Cement Masons	Building General	$72.37	15J	4U		View
Cowlitz	Cement Masons	Composition or Kalman Floors	$72.87	15J	4U		View
Cowlitz	Cement Masons	Concrete Paving	$72.37	15J	4U		View
Cowlitz	Cement Masons	Curb & Gutter Machine	$72.87	15J	4U		View
Cowlitz	Cement Masons	Curb & Gutter, Sidewalks	$72.37	15J	4U		View

Cowlitz	Cement Masons	Curing Concrete	$72.37	15J	4U		View
Cowlitz	Cement Masons	Finish Colored Concrete	$72.87	15J	4U		View
Cowlitz	Cement Masons	Floor Grinding	$72.87	15J	4U		View
Cowlitz	Cement Masons	Floor Grinding/Polisher	$72.37	15J	4U		View
Cowlitz	Cement Masons	Green Concrete Saw, self-powered	$72.87	15J	4U		View
Cowlitz	Cement Masons	Grouting of all Plates	$72.37	15J	4U		View
Cowlitz	Cement Masons	Grouting of all Tilt-up Panels	$72.37	15J	4U		View
Cowlitz	Cement Masons	Gunite Nozzleman	$72.87	15J	4U		View
Cowlitz	Cement Masons	Hand Powered Grinder	$72.87	15J	4U		View
Cowlitz	Cement Masons	Journey Level	$72.37	15J	4U		View
Cowlitz	Cement Masons	Patching Concrete	$72.37	15J	4U		View
Cowlitz	Cement Masons	Pneumatic Power Tools	$72.87	15J	4U		View
Cowlitz	Cement Masons	Power Chipping & Brushing	$72.87	15J	4U		View
Cowlitz	Cement Masons	Sand Blasting Architectural Finish	$72.87	15J	4U		View
Cowlitz	Cement Masons	Screed & Rodding Machine	$72.87	15J	4U		View
Cowlitz	Cement Masons	Spackling or Skim Coat Concrete	$72.37	15J	4U		View
Cowlitz	Cement Masons	Troweling Machine Operator	$72.87	15J	4U		View
Cowlitz	Cement Masons	Troweling Machine Operator on Colored Slabs	$72.87	15J	4U		View
Cowlitz	Cement Masons	Tunnel Workers	$72.87	15J	4U		View
Cowlitz	Divers & Tenders	Bell/Vehicle/Submersible Operator (not under pressure)	$117.21	5A	1B		View
Cowlitz	Divers & Tenders	Dive Master	$85.02	5A	1B		View
Cowlitz	Divers & Tenders	Dive Supervisor	$85.02	5A	1B		View
Cowlitz	Divers & Tenders	Diver	$117.21	5A	1B	8V	View
Cowlitz	Divers & Tenders	Diver On Standby	$80.52	5A	1B		View
Cowlitz	Divers & Tenders	Diver Tender	$73.21	5A	1B		View
Cowlitz	Divers & Tenders	Manifold Operator	$73.21	5A	1B		View
Cowlitz	Divers & Tenders	Manifold Operator Mixed Gas	$77.71	5A	1B		View
Cowlitz	Divers & Tenders	Remote Operated Vehicle Operator/Technician	$73.21	5A	1B		View
Cowlitz	Divers & Tenders	Remote Operated Vehicle Tender	$68.34	5A	1B		View
Cowlitz	Dredge Workers	Assistant Engineer	$70.01	5D	1N	8D	View
Cowlitz	Dredge Workers	Assistant Mate (deckhand)	$64.65	5D	1N	8D	View
Cowlitz	Dredge Workers	Boatman (licensed)	$70.01	5D	1N	8D	View
Cowlitz	Dredge Workers	Fill Equipment Operator	$67.35	5D	1N	8D	View
Cowlitz	Dredge Workers	Fireman	$68.52	5D	1N	8D	View
Cowlitz	Dredge Workers	Leverman (hydraulic & Clamshell)	$73.17	5D	1N	8D	View
Cowlitz	Dredge Workers	Mate	$70.01	5D	1N	8D	View
Cowlitz	Dredge Workers	Oiler	$64.65	5D	1N	8D	View
Cowlitz	Dredge Workers	Tenderman (boatman Attending Dredge Plant)	$68.52	5D	1N	8D	View
Cowlitz	Dredge Workers	Welder	$70.01	5D	1N	8D	View

Cowlitz	Drywall Applicator	Journey Level	$65.45	5A	1B		View
Cowlitz	Drywall Tapers	Journey Level	$63.70	7E	1E		View
Cowlitz	Electrical Fixture Maintenance Workers	Journey Level	$25.23		1		View
Cowlitz	Electricians - Inside	Journey Level	$91.09	5A	1B		View
Cowlitz	Electricians - Inside	Journeyman, Welder	$97.32	5A	1B		View
Cowlitz	Electricians - Motor Shop	Craftsman	$16.28		1		View
Cowlitz	Electricians - Motor Shop	Journey Level	$16.28		1		View
Cowlitz	Electricians - Powerline Construction	Cable Splicer	$93.00	5A	4D		View
Cowlitz	Electricians - Powerline Construction	Certified Line Welder	$85.42	5A	4D		View
Cowlitz	Electricians - Powerline Construction	Groundperson	$55.27	5A	4D		View
Cowlitz	Electricians - Powerline Construction	Heavy Line Equipment Operator	$85.42	5A	4D		View
Cowlitz	Electricians - Powerline Construction	Journey Level Lineperson	$85.42	5A	4D		View
Cowlitz	Electricians - Powerline Construction	Line Equipment Operator	$73.35	5A	4D		View
Cowlitz	Electricians - Powerline Construction	Meter Installer	$55.27	5A	4D	8W	View
Cowlitz	Electricians - Powerline Construction	Pole Sprayer	$85.42	5A	4D		View
Cowlitz	Electricians - Powerline Construction	Powderperson	$63.50	5A	4D		View
Cowlitz	Electronic Technicians	Journey Level	$74.89	5A	1B		View
Cowlitz	Elevator Constructors	Mechanic	$111.71	5N	4A		View
Cowlitz	Elevator Constructors	Mechanic In Charge	$120.87	5N	4A		View
Cowlitz	Fabricated Precast Concrete Products	Journey Level	$16.28		1		View
Cowlitz	Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	$16.28		1		View
Cowlitz	Fence Erectors	Fence Erector	$46.90	6Z	1M		View
Cowlitz	Fence Erectors	Fence Laborer	$46.90	6Z	1M		View
Cowlitz	Flaggers	Journey Level	$50.12	6Z	1M		View
Cowlitz	Glaziers	Journey Level	$73.97	7I	11K		View
Cowlitz	Heat & Frost Insulators And Asbestos Workers	Mechanic	$83.04	5N	1F		View
Cowlitz	Heating Equipment Mechanics	Journey Level	$96.42	7F	1E		View
Cowlitz	Hod Carriers & Mason Tenders	Journey Level	$58.20	5D	1B		View
Cowlitz	Industrial Power Vacuum Cleaner	Journey Level	$16.28		1		View
Cowlitz	Inland Boatmen	Boat Operator	$61.41	5B	1K		View
Cowlitz	Inland Boatmen	Cook	$56.48	5B	1K		View
Cowlitz	Inland Boatmen	Deckhand	$57.48	5B	1K		View
Cowlitz	Inland Boatmen	Deckhand Engineer	$58.81	5B	1K		View
Cowlitz	Inland Boatmen	Launch Operator	$58.89	5B	1K		View
Cowlitz	Inland Boatmen	Mate	$57.31	5B	1K		View

Cowlitz	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	$16.28		1		View
Cowlitz	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	$16.28		1		View
Cowlitz	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	$16.28		1		View
Cowlitz	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	$16.28		1		View
Cowlitz	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	$16.28		1		View
Cowlitz	Insulation Applicators	Journey Level	$65.45	5A	1B		View
Cowlitz	Ironworkers	Journey Level	$78.11	15K	11N		View
Cowlitz	Laborers	Anchor Machines	$54.85	6Z	1M		View
Cowlitz	Laborers	Application (including Pot Power Tender For Same), Applying Protective Material By Hand Or Nozzle On Utility Lines Or Storage Tanks On Project	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Asbestos Removal	$54.85	6Z	1M		View
Cowlitz	Laborers	Asphalt Plant Laborers	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Asphalt Raker	$55.36	6Z	1M		View
Cowlitz	Laborers	Asphalt Spreaders	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Ballast Regulators	$54.85	6Z	1M		View
Cowlitz	Laborers	Batch Weighman	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Bit Grinder	$54.85	6Z	1M		View
Cowlitz	Laborers	Brick Pavers (Dry)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Broomers	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Brush (power Saw)	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Brush Burners And Cutters	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Burners	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Car And Truck Loaders	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Carpenter Tender	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Change-house Man Or Dry Shack Man	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Chipping Guns	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Choker Setters	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Choker Splicer	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Chuck Tender	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Clary Power Spreader And Similar Types	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Clean Up Laborers	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Clean-up Nozzleman-green-cutter (concrete Rock, Etc.)	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Concrete Crew, Bull Gang	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Concrete Laborers	$54.24	6Z	1M	8S	View

Cowlitz	Laborers	Concrete Nozzlemen	$55.36	6Z	1M		View
Cowlitz	Laborers	Concrete Power Buggyman	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Concrete Saw Operator	$54.85	6Z	1M		View
Cowlitz	Laborers	Concrete Saw Operator (walls)	$55.36	6Z	1M		View
Cowlitz	Laborers	Confined Space / Hole Watch	$50.12	6Z	1M		View
Cowlitz	Laborers	Crusher Feeder	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Curing, Concrete	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Demolition And Wrecking Charred Materials	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Demolition, Wrecking And Moving Laborers	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Drill Doctor	$54.85	6Z	1M		View
Cowlitz	Laborers	Drill Operators, Air Tracks, Cat Drills, Wagon Drills, Rubber-mounted Drills And Other Similar Types, Including At Crusher Plants	$55.36	6Z	1M		View
Cowlitz	Laborers	Dry Pack Machine	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Dry Stack Walls	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Dumpers, Road Oiling Crew	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Dumpmen (for Grading Crew)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Elevator Feeders	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Erosion Control Specialist	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Final Clean-up	$50.12	6Z	1M		View
Cowlitz	Laborers	Fine Graders	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Fire Watch	$50.12	6Z	1M		View
Cowlitz	Laborers	Form Strippers (not Swinging Stages)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	General Laborer	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Grade Checker	$55.36	6Z	1M		View
Cowlitz	Laborers	Guard Rail, Median Rail, Reference Post Guide Post, Right-of-way Marker	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Gunite Nozzleman	$55.36	6Z	1M		View
Cowlitz	Laborers	Gunite Nozzleman Tender	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Gunite Or Sand Blasting Pot Tender	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Hand Placed Sand Blasting (wet)	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Handlers Or Mixers Of All Materials Of An Irritating Nature (including Cement & Lime)	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Hazardous Waste Worker	$54.85	6Z	1M		View
Cowlitz	Laborers	High Scalers, Strippers And Drillers Covers Work In Swinging Stages, Chairs Or Belts, Under Extreme Conditions Unusual To Blasting, Barring Down, Or S	$55.36	6Z	1M		View
Cowlitz	Laborers	Jackhammer	$54.24	6Z	1M	8S	View

Cowlitz	Laborers	Laser Beam	$55.36	6Z	1M		View
Cowlitz	Laborers	Laser Beam (pipe Laying) - Applicable When Employee Assigned To Move, Set Up, Align	$55.36	6Z	1M		View
Cowlitz	Laborers	Laser Beam (tunnel) - Applicable When Employee Assigned To Move, Set Up, Align	$55.36	6Z	1M		View
Cowlitz	Laborers	Lead Abatement	$54.85	6Z	1M		View
Cowlitz	Laborers	Leverman Or Aggregate Spreaders (flaherty And Similar Types)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Loading Spotters	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Loop Installation	$55.36	6Z	1M		View
Cowlitz	Laborers	Manhole Building	$54.85	6Z	1M		View
Cowlitz	Laborers	Material Yard Man	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Miner - Tunnel	$55.36	6Z	1M		View
Cowlitz	Laborers	Miner - Tunnel	$55.36	6Z	1M		View
Cowlitz	Laborers	Mold Remediation Or Removal	$54.85	6Z	1M		View
Cowlitz	Laborers	Multiple Tampers	$54.85	6Z	1M		View
Cowlitz	Laborers	Nippers And Timbermen	$54.85	6Z	1M		View
Cowlitz	Laborers	Nuclear Plant Worker - Lead Shield	$54.85	6Z	1M		View
Cowlitz	Laborers	Paving Breakers	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Pilot Car	$50.12	6Z	1M		View
Cowlitz	Laborers	Pipe Doping & Wrapping	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Pipe Layer All Types	$55.36	6Z	1M		View
Cowlitz	Laborers	Pittsburgh Chipper Operator Or Similar Types	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Post Hold Digger, Air, Gas Or Electric	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Pot Tender	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Powderman	$55.36	6Z	1M		View
Cowlitz	Laborers	Powderman Tender	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Power Jacks	$54.85	6Z	1M		View
Cowlitz	Laborers	Power Saw Operators (bucking & Falling)	$54.85	6Z	1M		View
Cowlitz	Laborers	Pressure Washer	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Pumpcrete Nozzleman	$55.36	6Z	1M		View
Cowlitz	Laborers	Railroad Track Laborers	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Ribbon Setter, Head	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Ribbon Setters (including Steel Forms)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Rigger/Signal Persion	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Rip Rap Man (hand Placed)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Rip Rap Man (head)	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Road Pump Tender	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Sand Blasting (dry)	$54.85	6Z	1M		View
Cowlitz	Laborers	Scaffold Tender	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Sewer Labor	$53.44	6Z	1M	8T	View

Cowlitz	Laborers	Sewer Timbermen	$54.85	6Z	1M		View
Cowlitz	Laborers	Signalman	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Skipman	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Slopers	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Spraymen	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Stake Chaser	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Stake-setter	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Stockpiler	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Tampers	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Tie Back Shoring	$54.24	6Z	1M	8S	View
Cowlitz	Laborers	Timber Faller And Bucker (hand Labor)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Toolroom Man (at Job Site)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Track Liners	$54.85	6Z	1M		View
Cowlitz	Laborers	Traffic Control Laborer	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Traffic Control Supervisor	$55.36	6Z	1M		View
Cowlitz	Laborers	Tugger Operator	$54.85	6Z	1M		View
Cowlitz	Laborers	Tunnel Bullgang (above Ground)	$55.36	6Z	1M		View
Cowlitz	Laborers	Tunnel Chuck Tenders	$55.36	6Z	1M		View
Cowlitz	Laborers	Tunnel Motorman - Dinky Locomotive	$55.36	6Z	1M		View
Cowlitz	Laborers	Tunnel Muckers, Brakemen	$55.36	6Z	1M		View
Cowlitz	Laborers	Tunnel Powderman	$55.36	6Z	1M		View
Cowlitz	Laborers	Tunnel Shield Operator	$55.36	6Z	1M		View
Cowlitz	Laborers	Vibrating Screed	$54.85	6Z	1M		View
Cowlitz	Laborers	Vibrators (all Types)	$54.85	6Z	1M		View
Cowlitz	Laborers	Water Blaster	$54.85	6Z	1M		View
Cowlitz	Laborers	Weight-man-crusher (aggregate When Used)	$53.44	6Z	1M	8T	View
Cowlitz	Laborers	Welder	$54.85	6Z	1M		View
Cowlitz	Laborers - Underground Sewer & Water	General Laborer and Topman	$55.36	6Z	1M		View
Cowlitz	Laborers - Underground Sewer & Water	Pipe Layer	$55.36	6Z	1M		View
Cowlitz	Landscape Construction	Landscape Operator	$65.93	7B	4G	8U	View
Cowlitz	Landscape Construction	Landscaping or Planting Laborer	$42.62	6Z	1M		View
Cowlitz	Landscape Maintenance	Groundskeeper	$16.28		1		View
Cowlitz	Lathers	Journey Level	$65.25	5A	1B		View
Cowlitz	Marble Setters	Journey Level	$72.24	5A	1B		View
Cowlitz	Metal Fabrication (In Shop)	Fitter	$25.33	7S	1B		View
Cowlitz	Metal Fabrication (In Shop)	Machine Operator	$25.33	7S	1B		View
Cowlitz	Metal Fabrication (In Shop)	Welder	$25.33	7S	1B		View
Cowlitz	Millwright	Journey Level	$75.38	5A	1B		View
Cowlitz	Modular Buildings	Journey Level	$16.28		1		View
Cowlitz	Painters	Bridge Painter	$56.94	7E	11L		View
Cowlitz	Painters	Commercial Painter	$48.86	7E	11L		View

Cowlitz	Painters	Industrial Painter	$50.81	7E	11L	9F	View
Cowlitz	Pile Driver	Journey Level	$66.39	5A	1B		View
Cowlitz	Plasterers	Journey Level	$63.74	5H	1E		View
Cowlitz	Playground & Park Equipment Installers	Journey Level	$16.28		1		View
Cowlitz	Plumbers & Pipefitters	Journey Level	$86.72	5A	1G		View
Cowlitz	Power Equipment Operators	Air Filtration Equipment(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt Plant (any Type) (assistant Engineer Required) (group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Burner & Reconditioner (any Type), (asst To Engineer If Required)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Extrusion Machine Operator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Paver (screed Man Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Pugmill (any Type) (group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Raker(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Roller (any Asphalt Mix)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Roto-mill, Pavement Profiler Under 8 Ft Lateral Cut(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Roto-mill, Pavement Profiler, 8 Ft Lateral Cut & Over(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Roto-mill, Pavement Profiler, Groundman(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Screed(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Asphalt, Truck Mounted Spreader, With Screed(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Auger Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Auto Grader Or "trimmer" (grade Checker Required) (group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Back Filling Machine (assistant To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Backhoe, Robotic, Track And Wheel Type Up To And Including 20,000 Lbs. With Any Attachments(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Band Wagons (in Conjuction With Whell Excavator)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Bell Man (any Type Of Comunication)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Blade Any Type(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Blade, Robotic(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Boatman(group 6)	$62.71	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Boatman, Licensed(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Bobcat, Skid Steer (< 1yd) (group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Boom Type Lifting Device, 5 Ton Capacity Or Less(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Boring Machine (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Broom Self-propelled, Construction Job Site(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Bulldozer Operator, 20,000 Lbs Or Less, Or 100 Horse Or Less(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Bulldozer Operator, Over 20,000 Lbs And More Than 100 Horse Up To 70,000 Lbs(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Bulldozer Over 70,000 Lbs Up To And Including 120,000 Lbs(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Bulldozer Over 120,000 Lbs And Above(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Bulldozer Robotic Equipment(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Cable-plow (any Type)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Cableway 25 Ton & Over(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Cableway Up To 25 Ton(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Canal Trimmer (grade Oiler Required)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Cat Drill (john Henry)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Cement Pump(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Challenger(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Chip Spreading Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Chippers (asst To Engineer If Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Churn Drill & Earth Boring Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Combination Heavy Duty Mechanic-welder, When Required To Do Both(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Compactor Self Propelled Without Blade(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Compactor With Blade Self Propelled(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Compactor, Multi-engine(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Compactor, Robotic(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Compressor (any Power) 1,250 Cu Ft And Over Total Capacity(group 5)	$65.93	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Compressor Operator (any Power) Under 1,250 Cu Ft Total Capacity(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Batch Plant And/or Wet Mix (3 Units Or More) (group1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Batch Plant And/or Wet Mix Operator (1 & 2 Drums)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Batch Plant Quality Control(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Breaker (assistant To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Canal Line, Assistant To Engineer Required(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Curing Machine (riding Type)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Diamond Head Profiler(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Paving Road Mixer(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Planer(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete Saw(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Automatic Slip Form Paver (asst To Engineer Required)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Combination Mixer & Compressor Operator, Gunite Work(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Curb Machine Mechanical Berm, Curb And/or Curb And Gutter(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Finishing Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Grout Plant(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Grouting Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Joint Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Mixer Mobile(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Mixer Single Drum Any Capacity(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Paving Machine 8' And Less (asst To Engineer Required)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Placing Boom(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Pump Truck(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Pump(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Pumpcrete Operator (any Type)(group 5)	$65.93	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Concrete, Reinforced Tank Banding Machine (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Slip Form Pumps, Power Driven Hydraulic Lifting Device For Concrete Forms(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Spreader(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Telebelt(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Concrete, Treated Base Roller Operator, Oiling(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Conveyor Operator Or Assistant(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Conveyored Material Hauler(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Bridge Locomotive, Gantry And Overhead(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Carry Deck(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Chicago Boom & Similar Types(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Floating (derrick Barge) 30 Ton But Less Than 150 Ton (asst To Engineer Required) (group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Floating 150 Ton But Less Than 250 Ton (asst To Engineer Required) (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Floating 250 Ton And Over (asst To Engineer And Deckhand Required)(group 1)	$75.72	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Floating Clamshell 3 Cu. Yds. & Over (fireman Or Diesel Electric Engineer Required(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Floating Clamshell, Dragline Etc. Operator Under 3 Cu. Yds. Or Less Than 30 Ton (diesel-electric Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic 200 Ton Through 399 Ton (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic 50 Ton Through 89 Ton With Luffing Or Tower Attachment(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic 50 Ton Through 89 Tons(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic 90 Ton Through 199 Ton With Luffing Or Tower Attachment (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic 90 Ton Through 199 Ton(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic Crane 200 Ton Through 300 Ton With Luffing Or Tower Attachment(group 1)	$75.72	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Crane, Hydraulic Crane 400 Ton And Over(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic Crane Over 300 Ton Through 399 Ton With Luffer Or Tower Attachment(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Hydraulic Under 50 Ton(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom 200 Ton Through 299 Ton, With Over 200' Boom(group 1)	$75.72	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom 300 Ton Through 399 Ton(group 1)	$75.72	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom 300 Ton Through 399 Ton, With Over 200' Boom(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom 50 Ton Through 89 Ton With 150' Boom Or Less(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom 50 Ton Through 89 Ton With Over 150' Boom	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom 90 Ton Through 199 Ton With 150' - 200' Boom(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom Under 50 Ton(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom, 200 Ton Through 299 Ton With 200' Boom Or Less (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Lattice Boom, 90 Ton Through 199 Ton With Over 200' Boom (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Shovel, Dragline Or Clamshell 3 Cu. Yds. But Less Than 5 Cu. Yds. (asst To Engineer Required)(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Tower Crane With 175' Tower Or Less And With Less Than 200' Jib(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Tower Crane With Over 175' Tower Or Over 200' Jib (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Tugger(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Whirley 90 Ton And Over (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crane, Whirley Under 90 Ton(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crusher Feederman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crusher Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Crusher Plant(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Deckhand(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Derrick Operator Under 100 Ton (two Operators Required	$67.17	7B	4G	8U	View

		When Swing Control Is Remote From Hoist)(group 4)					
Cowlitz	Power Equipment Operators	Diesel-electric Engineer (plant Or Floating)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Directional Drill Over 20,000 Lbs Pullback(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Drill Assistant(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Drill Cat Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Drill Directional Type Less Than 20,ooo Lbs Pullback(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Drill Doctor And/or (bit Grinder)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Drill Mud Mixer(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Drill Oscillator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Drill, Directinal Locator(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Driller, Percussion, Diamond, Core, Cable, Rotary & Similar Type(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Elevating Grader Operator, Tractor Towed Requiring Operator Or Grader(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Elevating Loader Operator (any Type)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Elevator To Move Personnel Or Materials(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Excavator Over 80,000 Lbs Through 130,000 Lbs(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Excavator Operator, Over 20,000 Lbs Through 80,000 Lbs(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Excavator Operator, Over 130,000 Lbs(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Fireman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Floating, Crane 350 Ton And Over (asst To Engineer And Deckhand Required)(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Fork Lift(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Fork Lift, Over 10 Ton Or Robotic(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Generator Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Grade Checker(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Grade Setter / Layout From Plans(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Grade-all(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Guardrail Machines, I.e. Punch, Auger, Etc.(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Guardrail Punch Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hammer Operator (pile Driver) (group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Heavy Duty Repairman Assistant(group 6)	$62.71	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Heavy Equipment Robotics Operator Or Mechanic(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Helicopter Hoist(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Helicopter Radioman (ground) (group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Helicopter When Used In Erecting Workcrane(group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hoist Operator, Single Drum(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hoist, 2 Drums Or More(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hoist, Stiff Leg, Guy Derrick Or Similar Type, 50 Ton And Over(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hydraulic Backhoe Track Type Up To And Including 20,000 Lbs(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hydraulic Backhoe Wheel Type (any Make)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hydraulic Pipe Press(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hydro Axe (loader Mounted Or Similar Type)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hydrographic Seeder Machine Straw, Pulp Or Seed(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Hydrostatic Pump Operator(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Internal Full Slab Vibrator Operator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Jack Operator, Elevating Barges, Barge Operator, Self-unloading (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Laser Screed(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Lattice Boom Crane 400 Ton And Over(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Lime Spreader, Construction Job Site(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Loaders Operator, Front End & Overhead, 25,000 Lbs And Less Than 60,000 Lbs(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Loaders, 120,000 Lbs And Above(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Loaders, 60,000 Lbs And Less Than 120,000 Lbs(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Loaders, Rubber-tire Type, Less Than 25,000 Lbs(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Log Skidders(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Master Environmental Maintenance Mechanic(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Material Handler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Mechanic, Heavy Duty(group 4)	$67.17	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Mixer Box (c.t.b., Dry Batch, Etc.)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Parts Man (tool Room)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Pavement Grinder And Or Grooving Machine (riding Type) (group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Pile Driver Operator (not Crane Type) (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Pipe Bending, Cleaning, Doping And Wrapping Machines(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Pipe, Cast In Place Pipe Laying Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Plant Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Pump (any Power)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Pump Operator, More Than 5 Pumps (any Size)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Ballast Compactor, Regulator Or Tamper Machines(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Ballast Tamper Multi-purpose(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Brakeman, Switchman, Motorman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Car Mover(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Clip Applicator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, High Rail Self Loader Truck(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Lo-railer(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Locomotive, 40 Ton And Over (asst To Engineer Required)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Shuttle Car Operator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Speedswing(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Switchman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Tamping Machine, Mechanical, Self-propelled(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rail, Track Liner(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Remote Controlled Earth Moving Equipment(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rigger(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Roller Grading (not Asphalt) (group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Rubber-tired Dozers And Pushers(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Scraper All Types(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Service Oiler (greaser)(group 5)	$65.93	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Shovel, Dragline, Clamshell, 5 Yards And Over(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Side-boom(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Skip Loader, Drag Box(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Stump Grinder (loader Mounted Or Similar Type)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Surface Heater And Planer(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Sweeper Self-propelled, Construction Job Site(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tar Pot Fireman (power Agitated) Or Not(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tractor Rubber-tired, 50 Hp Flywheel & Under(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tractor, Rubber-tired Over 50 Hp Flywheel(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Trenching Machine 3 Ft Depth And Deeper (asst To The Operator If Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Trenching Machine Operator, Maximum Digging Capacity 3 Ft Depth(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck Crane Oiler-driver(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck, All Terrain Or Track Type(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck, Barrel Type(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck, Boom(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck, Off-road Trucks, Articulated And Non-articulated Trucks(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck, Offraod Trucks, Articulated And Non-articulated Trucks(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck, Vacuum(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Truck, Water(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tub Grinder(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel Boring Machine Mechanic(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel Boring Machine(group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel Segment Plant(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel Separation Plant(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel Shaef Loader(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel, Locomotive, Dinkey(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel, Micro Boring Tunnel Machine(group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel, Mucking Machine(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Tunnel, Power Jumbo Setting Slip Forms, Etc.(group 5)	$65.93	7B	4G	8U	View

Cowlitz	Power Equipment Operators	Tunnel, Shield Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Ultra High Pressure Water Jet Cutting Tool System Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Underwater Equipment, Remote Or Otherwise(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Vacuum Blasting Machine Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Water Pulls, Water Wagon(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Welder's Assistant(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Welder; Heavy Duty, Certified Or Not(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Welding Machine(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Wheel Excavation Any Size (grade Oiler Required)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators	Wire Mat Or Brooming Machine(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Air Filtration Equipment(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt Plant (any Type) (assistant Engineer Required) (group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Burner & Reconditioner (any Type), (asst To Engineer If Required)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Extrusion Machine Operator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Paver (screed Man Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Pugmill (any Type) (group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Raker(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Roller (any Asphalt Mix)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Roto-mill, Pavement Profiler Under 8 Ft Lateral Cut(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Roto-mill, Pavement Profiler, 8 Ft Lateral Cut & Over(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Roto-mill, Pavement Profiler, Groundman(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Screed(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Asphalt, Truck Mounted Spreader, With Screed(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Auger Oiler(group 6)	$62.71	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Auto Grader Or "trimmer" (grade Checker Required) (group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Back Filling Machine (assistant To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Backhoe, Robotic, Track And Wheel Type Up To And Including 20,000 Lbs. With Any Attachments(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Band Wagons (in Conjuction With Whell Excavator)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Bell Man (any Type Of Comunication)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Blade Any Type(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Blade, Robotic(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Boatman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Boatman, Licensed(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Bobcat, Skid Steer (< 1yd) (group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Boom Type Lifting Device, 5 Ton Capacity Or Less(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Boring Machine (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Broom Self-propelled, Construction Job Site(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Bulldozer Operator, 20,000 Lbs Or Less, Or 100 Horse Or Less(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Bulldozer Operator, Over 20,000 Lbs And More Than 100 Horse Up To 70,000 Lbs(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Bulldozer Over 70,000 Lbs Up To And Including 120,000 Lbs(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Bulldozer Over 120,000 Lbs And Above(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Bulldozer Robotic Equipment(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Cable-plow (any Type)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Cableway 25 Ton & Over(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Cableway Up To 25 Ton(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Canal Trimmer (grade Oiler Required)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Cat Drill (john Henry)(group 4)	$67.17	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Cement Pump(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Challenger(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Chip Spreading Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Chippers (asst To Engineer If Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Churn Drill & Earth Boring Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Combination Heavy Duty Mechanic-welder, When Required To Do Both(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Compactor Self Propelled Without Blade(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Compactor With Blade Self Propelled(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Compactor, Multi-engine(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Compactor, Robotic(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Compressor (any Power) 1,250 Cu Ft And Over Total Capacity(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Compressor Operator (any Power) Under 1,250 Cu Ft Total Capacity(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Batch Plant And/or Wet Mix (3 Units Or More) (group1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Batch Plant And/or Wet Mix Operator (1 & 2 Drums)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Batch Plant Quality Control(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Breaker (assistant To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Canal Line, Assistant To Engineer Required(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Curing Machine (riding Type)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Diamond Head Profiler(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Paving Road Mixer(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Planer(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete Saw(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Automatic Slip Form Paver (asst To Engineer Required)(group 2)	$71.65	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Combination Mixer & Compressor Operator, Gunite Work(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Curb Machine Mechanical Berm, Curb And/or Curb And Gutter(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Finishing Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Grout Plant(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Grouting Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Joint Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Mixer Mobile(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Mixer Single Drum Any Capacity(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Paving Machine 8' And Less (asst To Engineer Required)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Placing Boom(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Pump Truck(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Pump(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Pumpcrete Operator (any Type)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Reinforced Tank Banding Machine (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Slip Form Pumps, Power Driven Hydraulic Lifting Device For Concrete Forms(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Spreader(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Telebelt(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Concrete, Treated Base Roller Operator, Oiling(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Conveyor Operator Or Assistant(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Conveyored Material Hauler(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Bridge Locomotive, Gantry And Overhead(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Carry Deck(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Chicago Boom & Similar Types(group 4)	$67.17	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Floating (derrick Barge) 30 Ton But Less Than 150 Ton (asst To Engineer Required) (group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Floating 150 Ton But Less Than 250 Ton (asst To Engineer Required) (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Floating 250 Ton And Over (asst To Engineer And Deckhand Required)(group 1)	$75.72	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Floating Clamshell 3 Cu. Yds. & Over (fireman Or Diesel Electric Engineer Required(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Floating Clamshell, Dragline Etc. Operator Under 3 Cu. Yds. Or Less Than 30 Ton (diesel-electric Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic 200 Ton Through 399 Ton (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic 50 Ton Through 89 Ton With Luffing Or Tower Attachment(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic 50 Ton Through 89 Tons(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic 90 Ton Through 199 Ton With Luffing Or Tower Attachment (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic 90 Ton Through 199 Ton(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic Crane 200 Ton Through 300 Ton With Luffing Or Tower Attachment(group 1)	$75.72	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic Crane 400 Ton And Over(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic Crane Over 300 Ton Through 399 Ton With Luffer Or Tower Attachment(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Hydraulic Under 50 Ton(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom 200 Ton Through 299 Ton, With Over 200' Boom(group 1)	$75.72	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom 300 Ton Through 399 Ton(group 1)	$75.72	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom 300 Ton Through 399 Ton, With Over 200' Boom(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom 50 Ton Through 89 Ton With 150' Boom Or Less(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom 50 Ton Through 89 Ton With Over 150'	$71.65	7B	4G	8U	View

		Boom					
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom 90 Ton Through 199 Ton With 150' - 200' Boom(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom Under 50 Ton(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom, 200 Ton Through 299 Ton With 200' Boom Or Less (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Lattice Boom, 90 Ton Through 199 Ton With Over 200' Boom (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Shovel, Dragline Or Clamshell 3 Cu. Yds. But Less Than 5 Cu. Yds. (asst To Engineer Required)(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Tower Crane With 175' Tower Or Less And With Less Than 200' Jib(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Tower Crane With Over 175' Tower Or Over 200' Jib (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Tugger(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Whirley 90 Ton And Over (group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crane, Whirley Under 90 Ton(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crusher Feederman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crusher Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Crusher Plant(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Deckhand(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Derrick Operator Under 100 Ton (two Operators Required When Swing Control Is Remote From Hoist)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Diesel-electric Engineer (plant Or Floating)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Directional Drill Over 20,000 Lbs Pullback(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Drill Assistant(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Drill Cat Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Drill Directional Type Less Than 20,ooo Lbs Pullback(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Drill Doctor And/or (bit Grinder)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Drill Mud Mixer(group 5)	$65.93	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Drill Oscillator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Drill, Directinal Locator(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Driller, Percussion, Diamond, Core, Cable, Rotary & Similar Type(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Elevating Grader Operator, Tractor Towed Requiring Operator Or Grader(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Elevating Loader Operator (any Type)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Elevator To Move Personnel Or Materials(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Excavator Over 80,000 Lbs Through 130,000 Lbs(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Excavator Operator, Over 20,000 Lbs Through 80,000 Lbs(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Excavator Operator, Over 130,000 Lbs(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Fireman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Floating, Crane 350 Ton And Over (asst To Engineer And Deckhand Required)(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Fork Lift(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Fork Lift, Over 10 Ton Or Robotic(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Generator Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Grade Checker(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Grade Setter / Layout From Plans(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Grade-all(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Guardrail Machines, I.e. Punch, Auger, Etc.(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Guardrail Punch Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hammer Operator (pile Driver) (group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Heavy Duty Repairman Assistant(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Heavy Equipment Robotics Operator Or Mechanic(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Helicopter Hoist(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Helicopter Radioman (ground) (group 6)	$62.71	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Helicopter When Used In Erecting Workcrane(group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hoist Operator, Single Drum(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hoist, 2 Drums Or More(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hoist, Stiff Leg, Guy Derrick Or Similar Type, 50 Ton And Over(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hydraulic Backhoe Track Type Up To And Including 20,000 Lbs(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hydraulic Backhoe Wheel Type (any Make)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hydraulic Pipe Press(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hydro Axe (loader Mounted Or Similar Type)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hydrographic Seeder Machine Straw, Pulp Or Seed(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Hydrostatic Pump Operator(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Internal Full Slab Vibrator Operator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Jack Operator, Elevating Barges, Barge Operator, Self-unloading (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Laser Screed(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Lattice Boom Crane 400 Ton And Over(group 1)	$77.88	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Lime Spreader, Construction Job Site(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Loaders Operator, Front End & Overhead, 25,000 Lbs And Less Than 60,000 Lbs(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Loaders, 120,000 Lbs And Above(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Loaders, 60,000 Lbs And Less Than 120,000 Lbs(group 3)	$70.50	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Loaders, Rubber-tire Type, Less Than 25,000 Lbs(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Log Skidders(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Master Environmental Maintenance Mechanic(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Material Handler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Mechanic, Heavy Duty(group 4)	$67.17	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Mixer Box (c.t.b., Dry Batch, Etc.)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Parts Man (tool Room)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Pavement Grinder And Or Grooving Machine (riding Type) (group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Pile Driver Operator (not Crane Type) (asst To Engineer Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Pipe Bending, Cleaning, Doping And Wrapping Machines(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Pipe, Cast In Place Pipe Laying Machine(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Plant Oiler(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Pump (any Power)(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Pump Operator, More Than 5 Pumps (any Size)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Ballast Compactor, Regulator Or Tamper Machines(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Ballast Tamper Multi-purpose(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Brakeman, Switchman, Motorman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Car Mover(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Clip Applicator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, High Rail Self Loader Truck(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Lo-railer(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Locomotive, 40 Ton And Over (asst To Engineer Required)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Shuttle Car Operator(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Speedswing(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Switchman(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Tamping Machine, Mechanical, Self-propelled(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rail, Track Liner(group 5)	$65.93	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Remote Controlled Earth Moving Equipment(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rigger(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Roller Grading (not Asphalt) (group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Rubber-tired Dozers And Pushers(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Scraper All Types(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Service Oiler (greaser)(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Shovel, Dragline, Clamshell, 5 Yards And Over(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Side-boom(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Skip Loader, Drag Box(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Stump Grinder (loader Mounted Or Similar Type)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Surface Heater And Planer(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Sweeper Self-propelled, Construction Job Site(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tar Pot Fireman (power Agitated) Or Not(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tractor Rubber-tired, 50 Hp Flywheel & Under(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tractor, Rubber-tired Over 50 Hp Flywheel(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Trenching Machine 3 Ft Depth And Deeper (asst To The Operator If Required)(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Trenching Machine Operator, Maximum Digging Capacity 3 Ft Depth(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler-driver(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck, All Terrain Or Track Type(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck, Barrel Type(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck, Boom(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck, Off-road Trucks, Articulated And Non-articulated Trucks(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck, Offraod Trucks, Articulated And Non-articulated Trucks(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck, Vacuum(group 5)	$65.93	7B	4G	8U	View

Cowlitz	Power Equipment Operators-Underground Sewer & Water	Truck, Water(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tub Grinder(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel Boring Machine Mechanic(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel Boring Machine(group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel Segment Plant(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel Separation Plant(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel Shaef Loader(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel, Locomotive, Dinkey(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel, Micro Boring Tunnel Machine(group 1)	$73.56	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel, Mucking Machine(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel, Power Jumbo Setting Slip Forms, Etc.(group 5)	$65.93	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Tunnel, Shield Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Ultra High Pressure Water Jet Cutting Tool System Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Underwater Equipment, Remote Or Otherwise(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Vacuum Blasting Machine Operator(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Water Pulls, Water Wagon(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Welder's Assistant(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Welder; Heavy Duty, Certified Or Not(group 4)	$67.17	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Welding Machine(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Wheel Excavation Any Size (grade Oiler Required)(group 2)	$71.65	7B	4G	8U	View
Cowlitz	Power Equipment Operators-Underground Sewer & Water	Wire Mat Or Brooming Machine(group 6)	$62.71	7B	4G	8U	View
Cowlitz	Power Line Clearance Tree Trimmers	Journey Level In Charge	$57.22	5A	4A		View
Cowlitz	Power Line Clearance Tree Trimmers	Spray Person	$54.32	5A	4A		View
Cowlitz	Power Line Clearance Tree Trimmers	Tree Equipment Operator	$57.22	5A	4A		View
Cowlitz	Power Line Clearance Tree Trimmers	Tree Trimmer	$51.18	5A	4A		View
Cowlitz	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	$38.99	5A	4A		View

Cowlitz	Refrigeration & Air Conditioning Mechanics	Journey Level	$89.21	5A	1G		View
Cowlitz	Residential Brick Mason	Journey Level	$23.02		1		View
Cowlitz	Residential Carpenters	Journey Level	$26.70		1		View
Cowlitz	Residential Cement Masons	Journey Level	$16.28		1		View
Cowlitz	Residential Drywall Applicators	Journey Level	$36.07		1		View
Cowlitz	Residential Drywall Tapers	Journey Level	$16.28		1		View
Cowlitz	Residential Electricians	Journey Level	$30.53		1		View
Cowlitz	Residential Glaziers	Journey Level	$42.76		1		View
Cowlitz	Residential Insulation Applicators	Journey Level	$28.53		1		View
Cowlitz	Residential Laborers	Journey Level	$53.44	6Z	1M	8T	View
Cowlitz	Residential Marble Setters	Journey Level	$23.02		1		View
Cowlitz	Residential Painters	Journey Level	$48.86	7E	11L		View
Cowlitz	Residential Plumbers & Pipefitters	Journey Level	$51.05		1		View
Cowlitz	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	$96.42	7F	1E		View
Cowlitz	Residential Sheet Metal Workers	Journey Level	$96.42	7F	1E		View
Cowlitz	Residential Soft Floor Layers	Journey Level	$58.78	7E	11Q		View
Cowlitz	Residential Sprinkler Fitters (Fire Protection)	Journey Level	$41.11		1		View
Cowlitz	Residential Stone Masons	Journey Level	$23.02		1		View
Cowlitz	Residential Terrazzo Workers	Journey Level	$16.28		1		View
Cowlitz	Residential Terrazzo/Tile Finishers	Journey Level	$36.64		1		View
Cowlitz	Residential Tile Setters	Journey Level	$16.28		1		View
Cowlitz	Roofers	Journey Level	$62.70	5A	3H		View
Cowlitz	Roofers	Using Irritable Bituminous Materials	$65.70	5A	3H		View
Cowlitz	Sheet Metal Workers	Journey Level (Field or Shop)	$96.42	7F	1E		View
Cowlitz	Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	$83.04	5N	1F		View
Cowlitz	Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	$83.04	5N	1F		View
Cowlitz	Sign Makers & Installers (Electrical)	Journey Level	$16.88		1		View
Cowlitz	Sign Makers & Installers (Non-Electrical)	Journey Level	$16.28		1		View
Cowlitz	Soft Floor Layers	Journey Level	$64.71	15J	4C		View
Cowlitz	Solar Controls For Windows	Journey Level	$16.28		1		View
Cowlitz	Sprinkler Fitters (Fire Protection)	Journey Level	$73.15	7J	1R		View
Cowlitz	Stage Rigging Mechanics (Non Structural)	Journey Level	$16.28		1		View
Cowlitz	Stone Masons	Journey Level	$71.24	5A	1B		View
Cowlitz	Street And Parking Lot Sweeper Workers	Journey Level	$16.28		1		View
Cowlitz	Surveyors	Chain Person	$62.71	7B	1B	9H	View
Cowlitz	Surveyors	Instrument Person	$65.93	7B	1B	9H	View

Cowlitz	Surveyors	Party Chief	$71.65	7B	1B	9H	View
Cowlitz	Telecommunication Technicians	Journey Level	$74.89	5A	1B		View
Cowlitz	Telephone Line Construction - Outside	Cable Splicer	$40.36	5A	2B		View
Cowlitz	Telephone Line Construction - Outside	Hole Digger/Ground Person	$26.92	5A	2B		View
Cowlitz	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	$33.74	5A	2B		View
Cowlitz	Telephone Line Construction - Outside	Telephone Lineperson	$38.15	5A	2B		View
Cowlitz	Terrazzo Workers	Journey Level	$61.27	5A	1B		View
Cowlitz	Tile Setters	Journey Level	$61.27	5A	1B		View
Cowlitz	Tile, Marble & Terrazzo Finishers	Finishers	$45.70	5A	1B		View
Cowlitz	Traffic Control Stripers	Journey Level	$85.52	15N	1K		View
Cowlitz	Truck Drivers	Asphalt Mix Over 10 Yards	$49.39	5A	1B		View
Cowlitz	Truck Drivers	Asphalt Mix To 10 Yards	$49.24	5A	1B		View
Cowlitz	Truck Drivers	Dump Truck	$49.24	5A	1B		View
Cowlitz	Truck Drivers	Dump Truck And Trailer	$49.39	5A	1B		View
Cowlitz	Truck Drivers	Other Trucks	$49.39	5A	1B		View
Cowlitz	Truck Drivers - Ready Mix	Transit Mix 5 cubic yards and under	$49.24	5A	1B		View
Cowlitz	Truck Drivers - Ready Mix	Transit Mix over 11 cubic yards up to 15 cubic yards	$49.85	5A	1B		View
Cowlitz	Truck Drivers - Ready Mix	Transit Mix over 5 cubic yards up to 7 cubic yards	$49.39	5A	1B		View
Cowlitz	Truck Drivers - Ready Mix	Transit Mix Over 7 cubic yards up to 11 cubic yards	$49.54	5A	1B		View
Cowlitz	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	$16.28		1		View
Cowlitz	Well Drillers & Irrigation Pump Installers	Oiler	$16.28		1		View
Cowlitz	Well Drillers & Irrigation Pump Installers	Well Driller	$17.97		1		View

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Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.

J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.

K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

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.

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).

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.

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.

Holiday Codes Continued

7. 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.

Holiday Codes Continued

15. N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

O. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, the day before Christmas day, and Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Note Codes

8. D. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: $1.00, Levels C & D: $0.50.

N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: $2.00, Class B Suit: $1.50, And Class C Suit: $1.00. Workers performing underground work receive an additional $0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional $0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do "pioneer" work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional $0.50 per hour.

Note Codes Continued

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.

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.

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.

Note Codes Continued

9. 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.

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 Specia 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 Custom End Sec	X 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.

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.]

APPENDICES

The following appendices are hereby provided and are made a part of the Contract Documents. The Contractor shall perform all work in accordance with the plans and specifications subject to the requirements and conditions contained within the Appendices.

Appendix A – Plans
Appendix B – Topographic Survey
Appendix C – Geotechnical Design Recommendations
Appendix D – Soldier Pile Installation Field Record
Appendix E – Cowlitz County and WSDOT Standard Plans

APPENDIX A

PLANS

HAZEL DELL ROAD RETAINING WALL

M.P. 1.76
Section 33, Township 9N, Range 2W
March 2024
CRP NO. 795

SYMBOL LEGEND

EXISTING

SYMBOL	DESCRIPTION
	FENCE GATE POST - EXISTING
	MAIL BOX
	CONIFER TREE*
	DECIDUOUS TREE*
	SIGN
	GUY ANCHOR
	LIGHT STANDARD
	UTILITY POLE

* NOTE THAT APPROXIMATE TREE DIAMETERS WERE COLLECTED, BUT NOT SHOWN HEREON DUE TO CLARITY ISSUES. PLEASE REQUEST THIS INFORMATION IF NECESSARY

ABBREVIATIONS

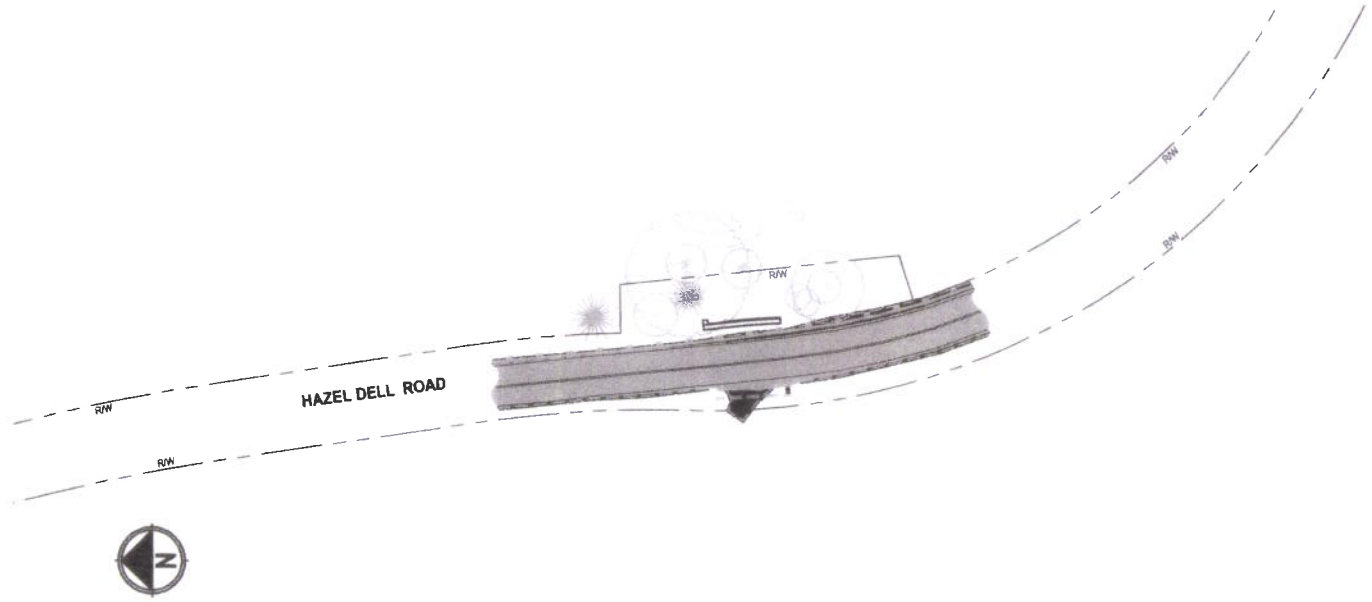
ABBREV	DESCRIPTION
Δ	DELTA
BRG	BEARING
BTW	BETWEEN
BVCS	POINT OF VERTICAL CURVATURE - STATION
BVCE	POINT OF VERTICAL CURVATURE - ELEVATION
CLR	CLEAR
CONC	CONCRETE
CPE	CORRUGATED POLYETHYLENE PIPE
DIA	DIAMETER
E	EAST
E.F	EACH FACE
EG	EXISTING GROUND
EL	ELEVATION
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EVCS	POINT OF VERTICAL TANGENCY - STATION
EVCE	POINT OF VERTICAL TANGENCY - ELEVATION
EXIST	EXISTING
FG	FINISH GRADE
HMA	HOT MIX ASPHALT
HP	HIGH POINT
I.E.	INVERT ELEVATION
INV	INVERT
JT	JOINT
L	LENGTH

ABBREVIATIONS

ABBREV	DESCRIPTION
LF	LINEAR FEET
LT	LEFT
M.P.	MILE POST
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
PC	POINT OF HORIZONTAL CURVATURE
PGA	PERMANENT GROUND ANCHOR
PI	POINT OF HORIZONTAL INTERSECTION
PT	POINT OF HORIZONTAL TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R/W	RIGHT OF WAY
RD	ROAD
RT	RIGHT
S	SOUTH
SHT	SHEET
STA	STATION
STD	STANDARD
TYP	TYPICAL
VC	VERTICAL CURVE
W	WEST
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
W/	WITH

LINETYPE LEGEND

EXISTING LINETYPE	EXISTING DESCRIPTION	DESIGN LINETYPE	DESIGN DESCRIPTION
	DRAINAGE CULVERT		ALIGNMENT CENTERLINE
	DRAINAGE / ROAD DITCH		EDGE OF PAVEMENT
	FENCE, TYPE AS NOTED		SHOULDER
	EDGE OF WATER		SILT FENCE
	EDGE OF PAVEMENT		GUARD RAIL
	EDGE OF GRAVEL	CUT	DAYLIGHT - CUT
	OVERHEAD WIRE	FILL	DAYLIGHT - FILL
	TELEPHONE LINE		DESIGN PROFILE AT CENTERLINE
	ELECTRIC LINE		CONTOUR - INDEX
	UTILITY LINE PAINT ENDS HERE, CONNECTION NOT LOCATED OR UNKNOWN		CONTOUR - INTERMEDIATE
	GUARD RAIL		
	BUILDING LINE		
	MAJOR CONTOUR - SPACED AT 5' INTERVALS		
	MINOR CONTOUR - SPACED AT 1' INTERVALS		
	RIGHT-OF-WAY LINE		
	EXISTING GROUND PROFILE AT CENTERLINE		



INDEX OF DRAWINGS

STANDARD DRAWINGS

DRAWING	DESCRIPTION
WSDOT:	
G-20.10	GROUND MOUNTED SIGN PLACEMENT
H-70.10	MAILBOX SUPPORT TYPE 1
I-30.17	HIGH VISIBILITY SILT FENCE
I-30.40	COMPOST SOCK
I-50.20	CHECK DAMS ON CHANNELS
I-60.10	BIODEGRADABLE EROSION CONTROL BLANKET PLACEMENT FOR SLOPES
I-80.10	MISCELLANEOUS EROSION CONTROL DETAILS
K-80.10	CLASS A CONSTRUCTION SIGNING INSTALLATION
K-80.32	CONCRETE BARRIER TYPE 2
K-80.35	TEMPORARY CONCRETE BARRIER ANCHORING
M-20.10	LONGITUDINAL MARKING PATTERNS
M-40.10	GUIDEPOSTS AND BARRIER DELINEATORS
COUNTY:	
CC-1202	GUARDRAIL LOCATION
CC-1317	APPROACH - ASPHALT OR CONCRETE APRON

NOTE: SCALES SHOWN ARE FOR FULL SIZE (22" x 34") PLAN SHEETS ONLY. SCALES FOR PLANS PRINTED ON 11" x 17" (HALF SIZE) ARE APPROXIMATELY ONE HALF SCALE.

PURPOSE OF SURVEY:

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

COUNTY PROJECT NUMBER: 1772

BASIS OF BEARINGS / HORIZONTAL COORDINATES / CONTROL SCHEME:

WASHINGTON STATE PLANE, SOUTH ZONE (SPC 4602 WA S), UTILIZING GRID DISTANCES- SEE BELOW:

HORIZONTAL COORDINATES AND BASIS OF BEARINGS ARE BASED ON WASHINGTON STATE PLANE (SOUTH ZONE) REFERENCE FRAME: NAD83 (2011) (EPOCH:2010.0000), US SURVEY FEET. ALL DISTANCES ARE GRID AND WERE DETERMINED FROM NGS OPUS SOLUTIONS, WHICH WERE DERIVED FROM 2 HOUR MINIMUM GPS OBSERVATIONS ON CONTROL POINTS 1,7,8,13,65,85, AND 214 (NOT ALL SHOWN HEREON), UTILIZING THE FOLLOWING EXISTING BASE STATIONS:

PID	DESIGNATION	LATITUDE(")	LONGITUDE(")
DH4122	P690 MSH_SRIDGEWA2005 CORS GRP	N46°10'47.944"	W122°11'23.470"
DK4153	P446 KELSO_AIR_WA2007 CORS GRP	N46°06'56.369"	W122°53'33.975"
DG8346	P420 FANTASYFD_WA2004 CORS GRP	N46°35'18.952"	W122°51'58.733"
DH5821	P693 MSH_NWDOMEWA2004 CORS GRP	N46°12'37.142"	W122°12'08.394"
DN6068	GRMD GRAND MOUND CORS GRP	N46°47'43.735"	W123°01'21.288"
DH5824	P702 MSH_ELKRCKWA2004 CORS GRP	N46°18'00.565"	W122°20'44.271"
DH4131	P698 MSH_SESLPEWA2004 CORS GRP	N46°10'24.461"	W122°09'38.141"

CONTROL POINTS 1 AND 7 WERE THEN TIED TOGETHER USING STANDARD TRAVERSE TECHNIQUES, THE RESULTS OF WHICH WERE ADJUSTED TOGETHER IN A WEIGHTED LEAST SQUARES ADJUSTMENT, UTILIZING STARNET SOFTWARE. AN AVERAGE PROJECT COMBINED SCALE FACTOR (0.9999288985) WAS CALCULATED FOR THE PURPOSES OF COMPARING GRID DISTANCES TO GROUND DISTANCES.
GRID DISTANCE OF 1000.00' = GROUND DISTANCE OF 1000.07'

THE CONVERGENCE ANGLE IS -1°45'37" AT CONTROL POINT NUMBER 11.

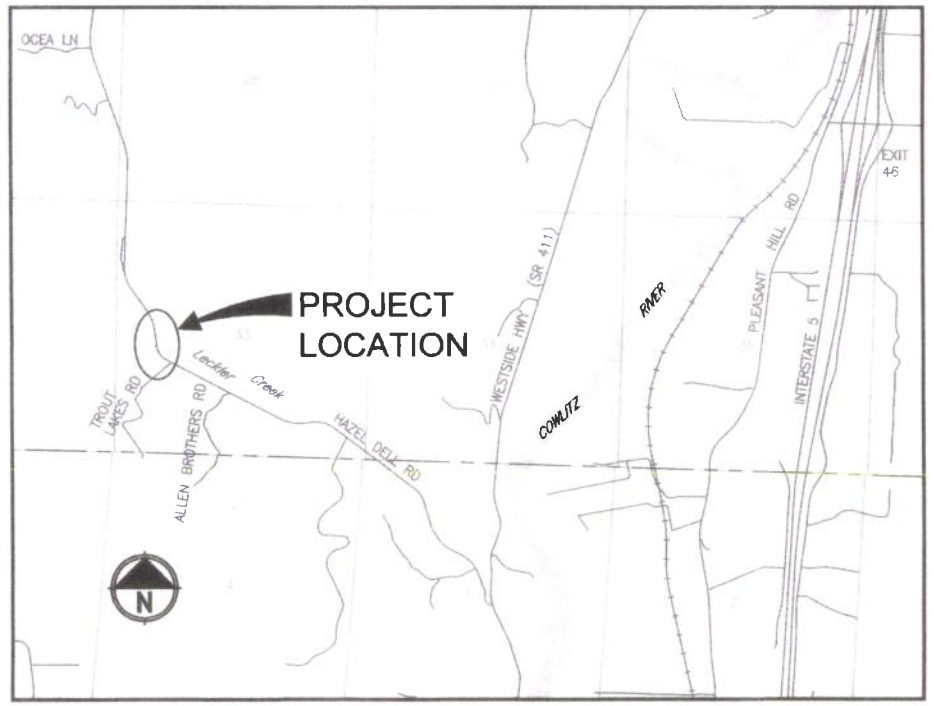
VERTICAL DATUM:

ELEVATION DATUM: NAVD 88
BENCHMARK: CONTROL POINT #11
LOCATION: AS SHOWN HEREON
ELEVATION: 128.23 FEET

SEE APPENDIX B FOR PROJECT TOPOGRAPHIC SURVEY.

SURVEY CONTROL TABLE

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
9	332,568.833	1,021,942.876		SET MAG NAIL
10	332,729.886	1,021,727.790		SET 5/8" REBAR
11	332,970.122	1,021,685.166	128.23	SET 5/8" REBAR
12	333,356.629	1,021,593.703		SET 5/8" REBAR
111	332,842.722	1,021,665.867		1-1/2" IRON PIPE
206	333,021.340	1,021,683.198		1-1/2" IRON PIPE

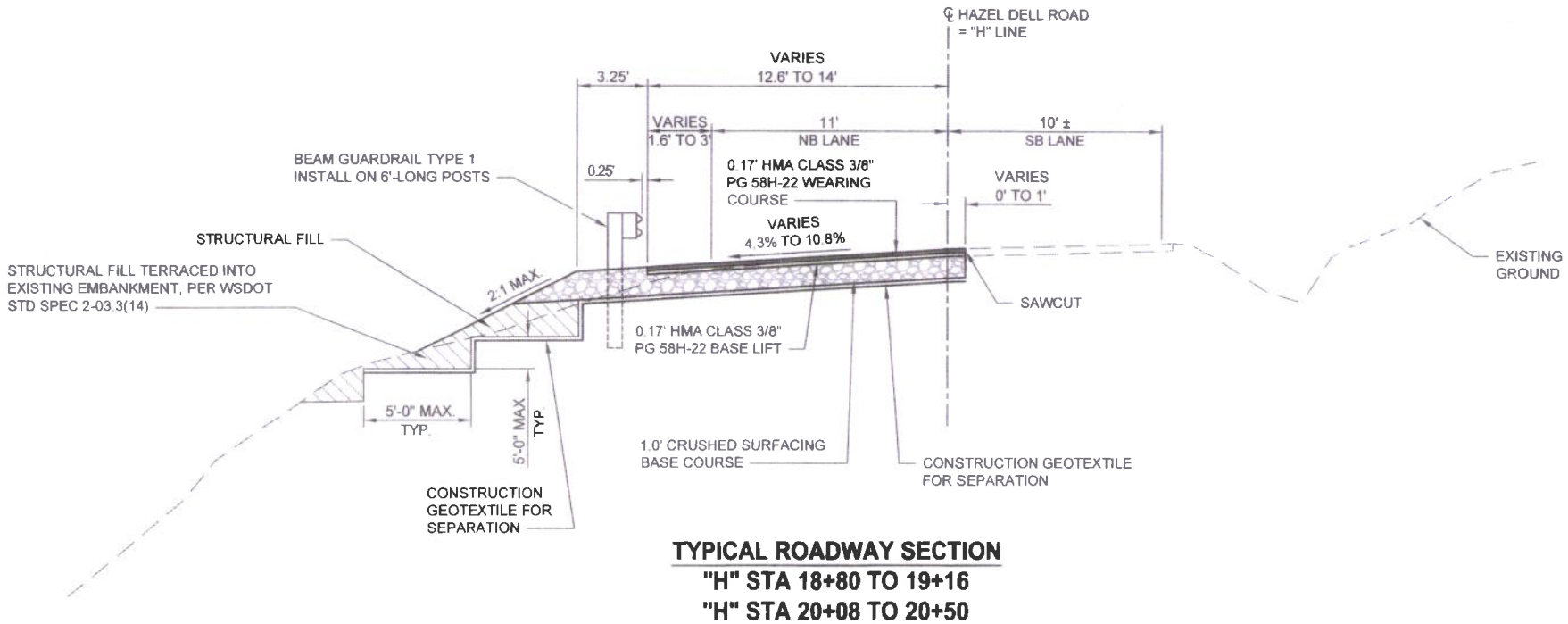


VICINITY MAP

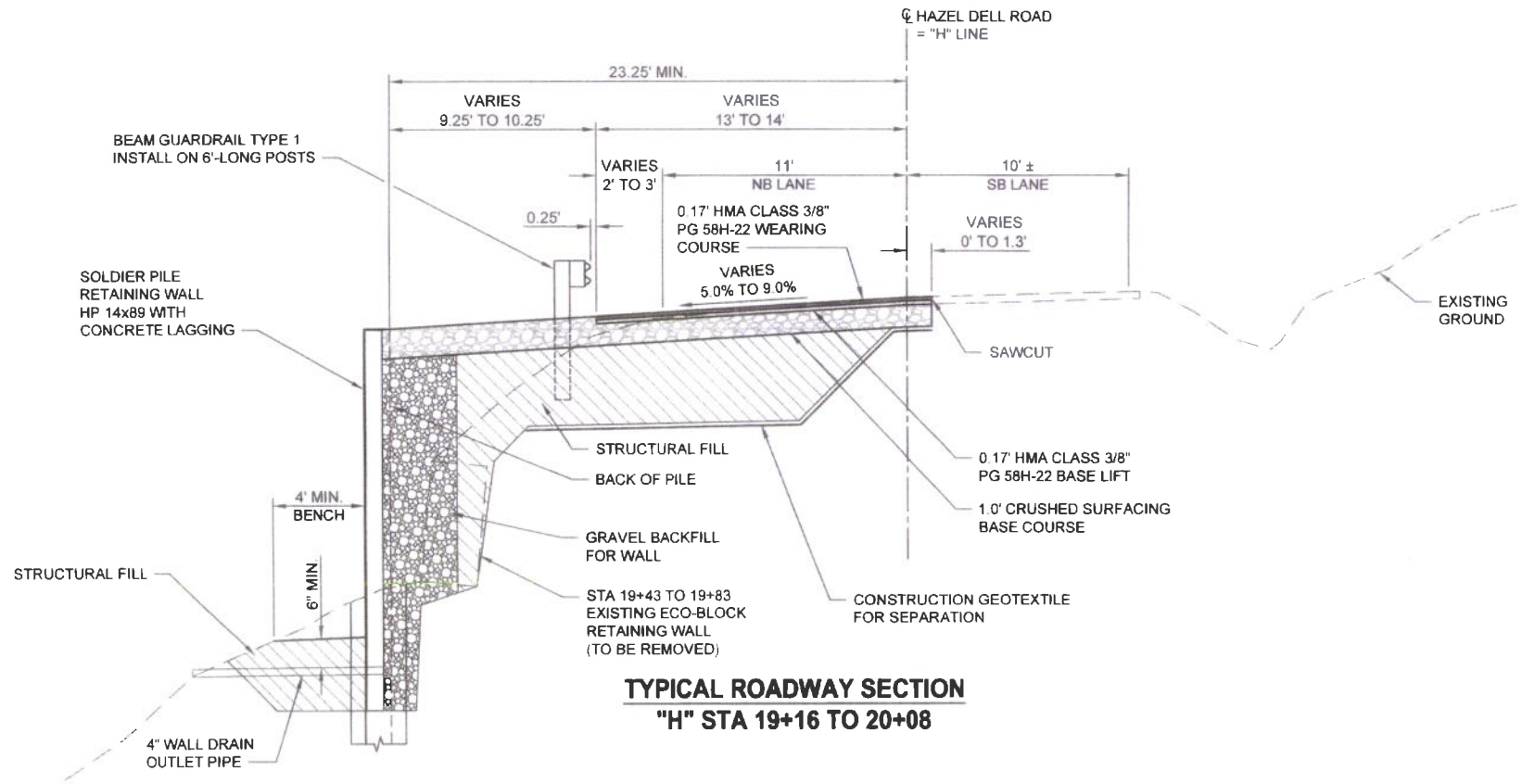
CALL 48 HOURS BEFORE YOU DIG
1-800-424-5555
"It's the Law"

Parametrix

BRIAN BIERWAGEN 2/27/2024 PROJECT MANAGER DATE NILS HOVLAND 2/27/2024 DRAWN BY DATE BRIAN BIERWAGEN 2/27/2024 CHECKED BY DATE	HORIZ SCALE AS SHOWN VERT SCALE AS SHOWN PROJECT ID 1772 ROAD NO. 21300 (HAZEL DELL RD) COMPUTER FILE PO2415022A01-Cover Sheet.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	APPROVED BY: Susan Eugenis COUNTY ENGINEER DATE: 3/21/2024	BRIANN BIERWAGEN STATE OF WASHINGTON 26900 REGISTERED PROFESSIONAL ENGINEER 3/11/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL COVER SHEET	SHEET 1 OF 13



TYPICAL ROADWAY SECTION
"H" STA 18+80 TO 19+16
"H" STA 20+08 TO 20+50



TYPICAL ROADWAY SECTION
"H" STA 19+16 TO 20+08

BRIAN BIERWAGEN — PROJECT MANAGER — 2/27/2024 DATE NILS HOVLAND — DRAWN BY — 2/27/2024 DATE BRIAN BIERWAGEN — CHECKED BY — 2/27/2024 DATE	HORIZ. SCALE: NOT TO SCALE VERT. SCALE: NOT TO SCALE PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD) COMPUTER FILE: PO2415022C01-Typical Roadway Sections.dwg	COWLITZ COUNTY WASHINGTON DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626
Parametrix 5 SE Martin Luther King Jr. Blvd. Suite 400 • Portland, OR 97214 Ph: 503.233.2400	BRIAN N BIERWAGEN STATE OF WASHINGTON 25800 REGISTERED PROFESSIONAL ENGINEER 3/8/24	SECTION 33, T9N, R2W CRP NO. 795
HAZEL DELL ROAD MP 1.76 **RETAINING WALL** **TYPICAL ROADWAY SECTIONS**	SHEET 2 OF 13	

LEGEND

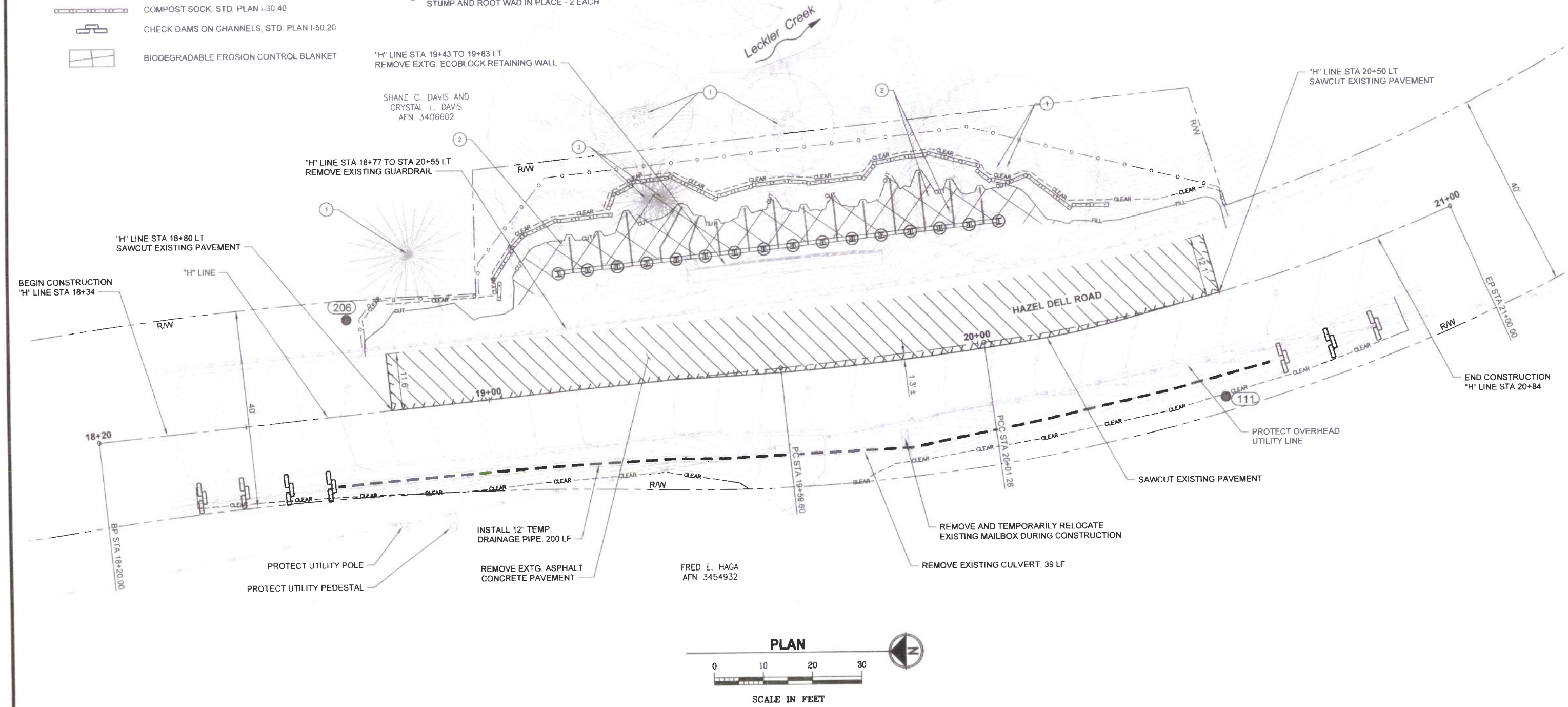
- LIMITS OF SITE CLEARING
- LIMITS OF EXCAVATION
- LIMITS OF EMBANKMENT
- PAVEMENT SAWCUT
- PAVEMENT REMOVAL
- HIGH VISIBILITY SILT FENCE, STD. PLAN I-30.17
- COMPOST SOCK, STD. PLAN I-30.40
- CHECK DAMS ON CHANNELS, STD. PLAN I-50.20
- BIODEGRADABLE EROSION CONTROL BLANKET

NOTES

1. REMOVAL OF CONCRETE WALL BLOCKS PAID AS REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
2. REMOVAL AND TEMPORARY RELOCATION OF MAILBOX PAID AS REMOVAL OF STRUCTURES AND OBSTRUCTIONS.

CONSTRUCTION NOTES

1. PROTECT EXISTING TREE
2. EXISTING TREE TO BE REMOVED - 3 EACH
3. EXISTING TREE TO BE REMOVED, LEAVE STUMP AND ROOT WAD IN PLACE - 2 EACH



PLAN

0 10 20 30

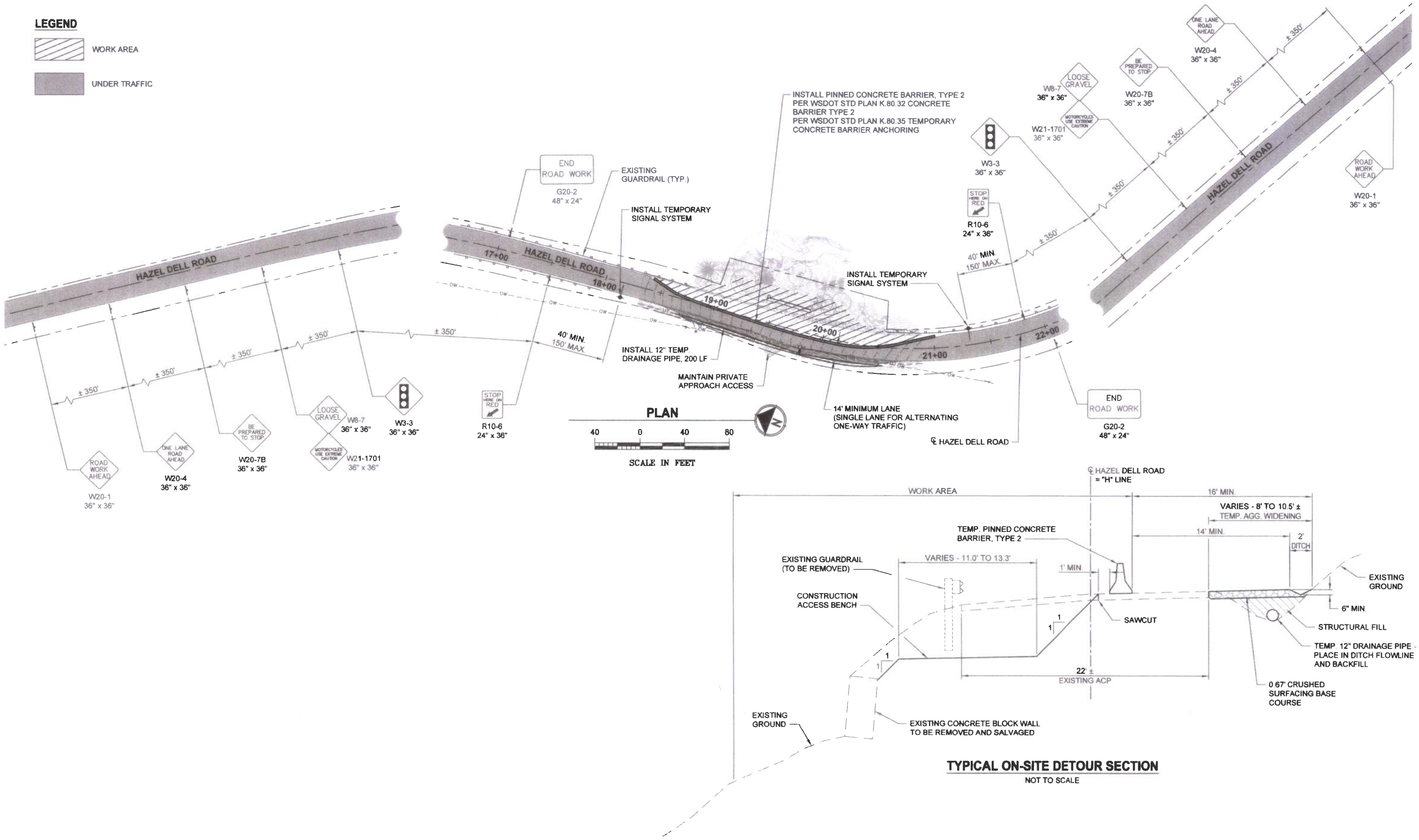
SCALE IN FEET

BRIAN BIERWAGEN PROJECT MANAGER 2/27/2024 DATE NILS HOVLAND DRAWN BY 2/27/2024 DATE BRIAN BIERWAGEN CHECKED BY 2/27/2024 DATE	HORIZ. SCALE: 1" = 10' VERT. SCALE: PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD) COMPUTER FILE: PO2415022C02-Removal and TESC Plan.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214 Ph: 503.233.2400	BRIAN N BIERWAGEN STATE OF WASHINGTON 21800 REGISTERED PROFESSIONAL ENGINEER 5/11/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL REMOVAL AND TESC PLAN	SHEET 3 OF 13

LEGEND

WORK AREA

UNDER TRAFFIC



TYPICAL ON-SITE DETOUR SECTION

NOT TO SCALE

BRIAN BIERWAGEN — PROJECT MANAGER — 2/27/2024 DATE	HORIZ SCALE: 1" = 40'	DEPARTMENT OF PUBLIC WORKS
NILS HOVLAND — DRAWN BY — 2/27/2024 DATE	VERT SCALE:	1600 13TH AVENUE SOUTH
BRIAN BIERWAGEN — CHECKED BY — 2/27/2024 DATE	PROJECT ID 1772	KELSO, WASHINGTON 98626
	ROAD NO. 21300 (HAZEL DELL RD)	
	COMPUTER FILE: PO2415022C03-Traffic Control Plan.dwg	

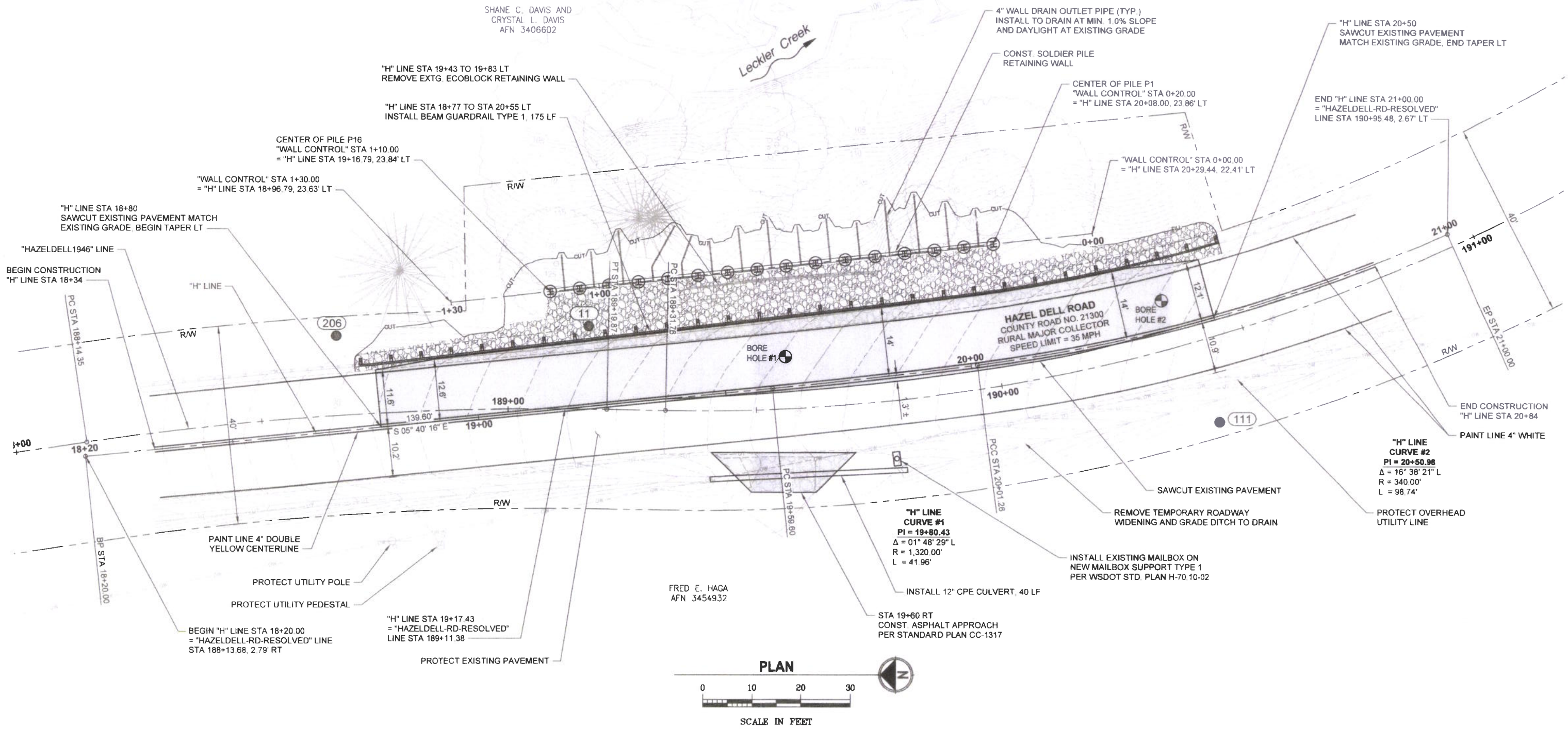
Parametrix
5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214
Ph: 503.233.2400

BRIAN N BIERWAGEN — STATE OF WASHINGTON — 28900 — REGISTERED PROFESSIONAL ENGINEER — 3/11/24

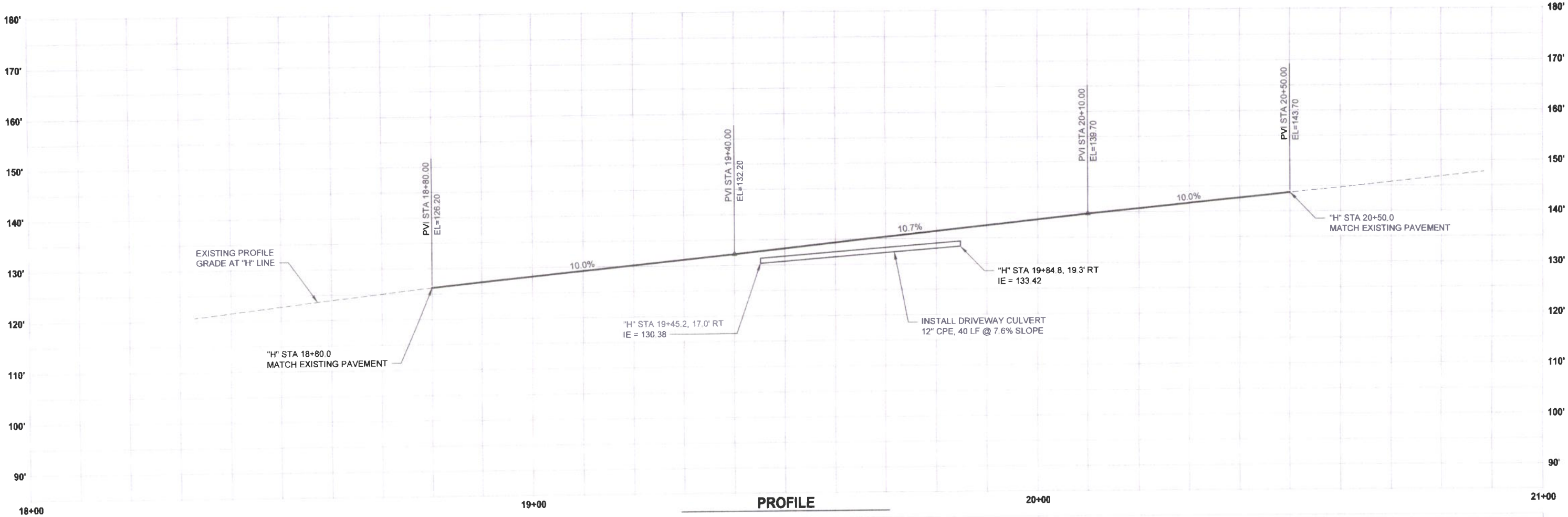
SECTION 33, T9N, R2W
CRP NO. 795

HAZEL DELL ROAD MP 1.76
RETAINING WALL
TRAFFIC CONTROL PLAN

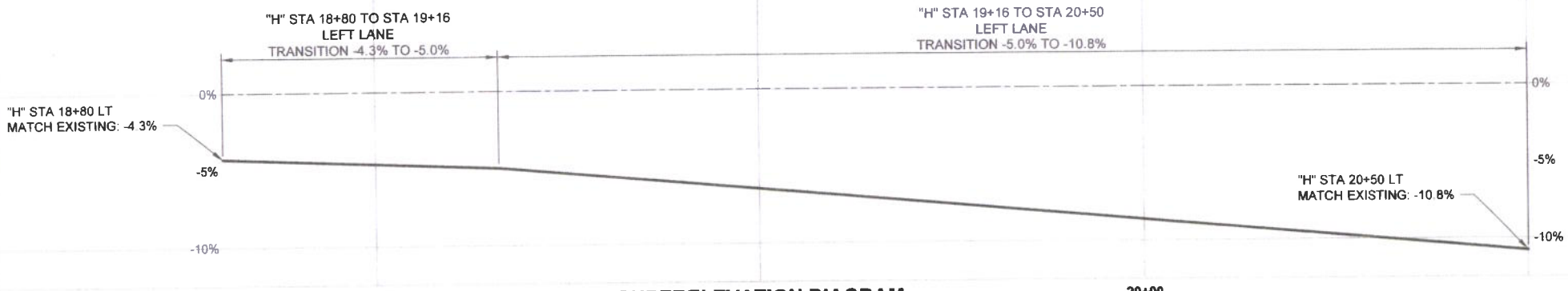
SHEET 4 OF 13



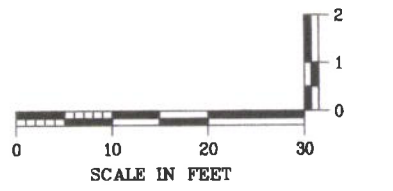
BRIAN BIERWAGEN PROJECT MANAGER	2/27/2024 DATE	HORIZ. SCALE: 1" = 10' VERT. SCALE:	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214 Ph: 503.233.2400	BRIAN N BIERWAGEN STATE OF WASHINGTON 22990 REGISTERED PROFESSIONAL ENGINEER 3/11/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL	SHEET 5 OF 13
NILS HOVLAND DRAWN BY	2/27/2024 DATE	PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD)						ROADWAY AND WALL PLAN	
BRIAN BIERWAGEN CHECKED BY	2/27/2024 DATE	COMPUTER FILE: PO2415022C04-Roadway Plan and Profile-Wall Plan.dwg							



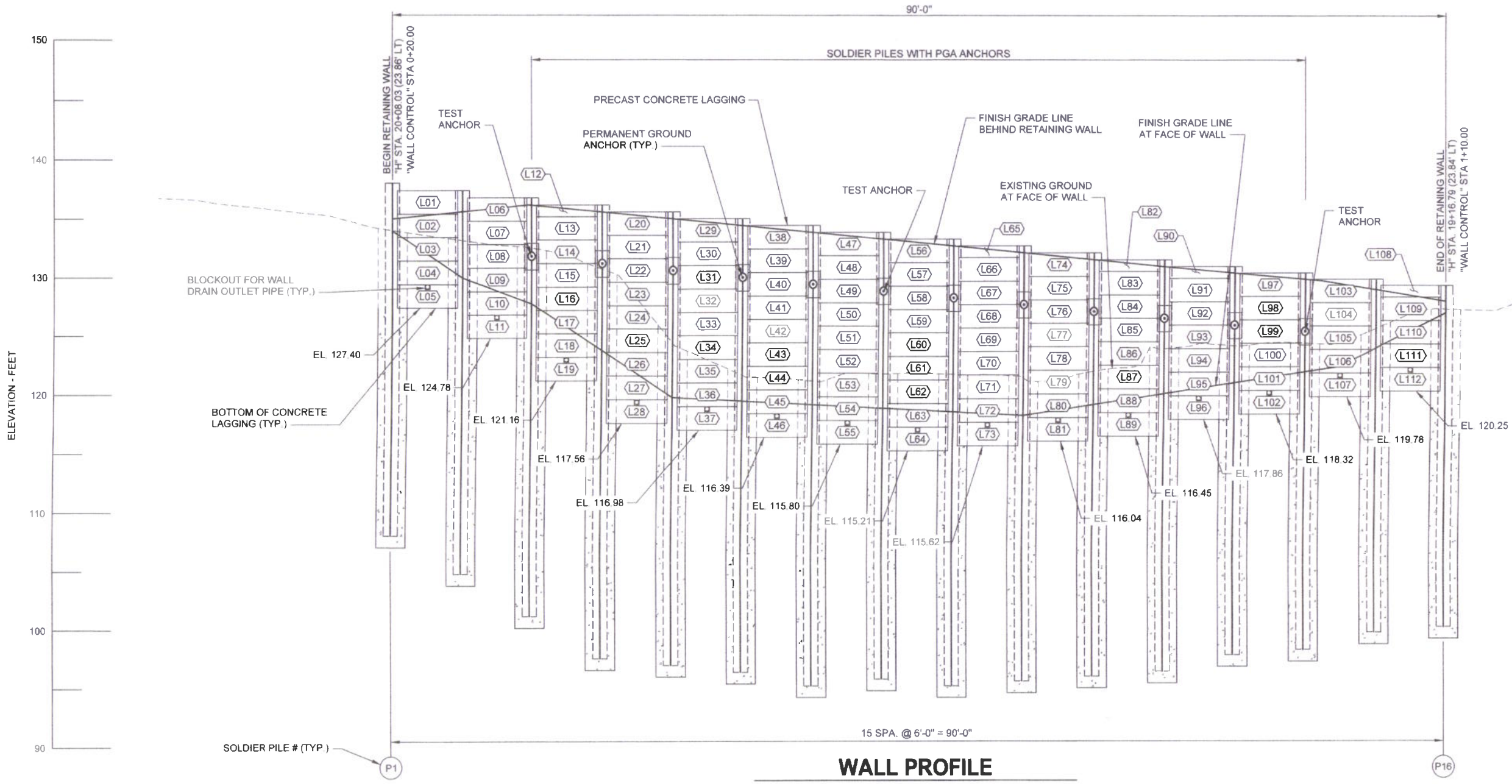
PROFILE



SUPERELEVATION DIAGRAM



BRIAN BIERWAGEN PROJECT MANAGER 2/27/2024 DATE NILS HOVLAND DRAWN BY 2/27/2024 DATE BRIAN BIERWAGEN CHECKED BY 2/27/2024 DATE	HORIZ. SCALE 1" = 10' VERT SCALE 1" = 2' PROJECT ID: 1772 ROAD NO. 21300 (HAZEL DELL RD) COMPUTER FILE PO2415022C04-Roadway Plan and Profile-Wall Plan.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214 Ph: 503.233.2400	BRIAN N BIERWAGEN STATE OF WASHINGTON 22900 REGISTERED PROFESSIONAL ENGINEER 3/11/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL ROADWAY PROFILE	SHEET 6 OF 13



WALL PROFILE

HORIZ: 1" = 5'-0"
VERT: 1" = 5'-0"

SOLDIER PILE SCHEDULE

PILE #	"H" LINE STATION	OFFSET	SOLDIER PILE SIZE	TOP OF PILE ELEVATION	EST. PILE TIP ELEVATION	TOTAL LENGTH OF SOLDIER PILE	TOP OF LAGGING ELEVATION	SHAFT DIAMETER	P.G.A. FACTORED DESIGN LOAD (KIPS)
P1	20+08.03	23.86' LT	HP 14x89	138.02'	108.02'	30.00'	137.40'	2'-6"	-
P2	20+01.58	24.05' LT	HP 14x89	137.40'	104.78'	32.62'	136.78'	2'-6"	-
P3	19+95.45	24.16' LT	HP 14x89	136.78'	101.16'	35.62'	136.16'	2'-6"	37
P4	19+89.34	24.25' LT	HP 14x89	136.16'	97.56'	38.60'	135.56'	2'-6"	57
P5	19+83.23	24.31' LT	HP 14x89	135.56'	96.98'	38.58'	134.98'	2'-6"	63
P6	19+77.11	24.34' LT	HP 14x89	134.98'	96.39'	38.59'	134.39'	2'-6"	60
P7	19+71.00	24.35' LT	HP 14x89	134.39'	95.21'	39.18'	133.80'	2'-6"	55
P8	19+64.89	24.32' LT	HP 14x89	133.80'	95.80'	38.00'	133.21'	2'-6"	52
P9	19+58.79	24.27' LT	HP 14x89	133.21'	95.21'	38.00'	132.62'	2'-6"	49
P10	19+52.79	24.21' LT	HP 14x89	132.62'	95.62'	37.00'	132.04'	2'-6"	47
P11	19+46.79	24.15' LT	HP 14x89	132.04'	96.04'	36.00'	131.45'	2'-6"	44
P12	19+40.79	24.09' LT	HP 14x89	131.45'	96.45'	35.00'	130.86'	2'-6"	37
P13	19+34.79	24.02' LT	HP 14x89	130.86'	97.86'	33.00'	130.32'	2'-6"	33
P14	19+28.79	23.96' LT	HP 14x89	130.32'	98.32'	32.00'	129.78'	2'-6"	27
P15	19+22.79	23.90' LT	HP 14x89	129.78'	99.78'	30.00'	129.25'	2'-6"	-
P16	19+16.79	23.84' LT	HP 14x89	129.25'	100.25'	29.00'		2'-6"	-

NOTES:

1. DRILLING AND INSTALLATION OF THE SOLDIER PILES AND PERMANENT GROUND ANCHORS SHOULD BE MONITORED THROUGHOUT CONSTRUCTION BY A GEOTECHNICAL DESIGN TEAM REPRESENTATIVE.
2. GEOTECHNICAL ENGINEER SHALL DETERMINE FINAL TIP ELEVATIONS BASED ON PREBORING MATERIALS ENCOUNTERED.
3. FOLLOWING INSTALLATION, EACH PERMANENT GROUND ANCHOR SHALL BE TESTED FOLLOWING THE PROCEDURES IN THE 2024 WSDOT STANDARD SPECIFICATIONS SECTION 6-17.3(8) AND SPECIAL PROVISIONS TO CONFIRM THE REQUIRED AXIAL RESISTANCE.
4. PERFORMANCE TESTING SHALL BE PERFORMED ON (3) THREE PERMANENT GROUND ANCHORS.
5. SEE GEOTECHNICAL REPORT DATED APRIL 23RD, 2023 FOR RECOMMENDATIONS ON CAVING AND OBSTRUCTIONS.

BRIAN BIERWAGEN — PROJECT MANAGER — 2/27/2024 DATE
CHELSEA HORCHY — DRAWN BY — 2/27/2024 DATE
DAN MCINTIER — CHECKED BY — 2/27/2024 DATE

HORIZ. SCALE: 1" = 5'-0"
VERT. SCALE: 1" = 5'-0"
PROJECT ID 1772
ROAD NO. 21300 (HAZEL DELL RD)
COMPUTER FILE:
PO2415022S01-Wall Profile.dwg

COWLITZ COUNTY WASHINGTON

DEPARTMENT OF PUBLIC WORKS
1600 13TH AVENUE SOUTH
KELSO, WASHINGTON 98626

Parametrix
5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214
Ph: 503.233.2400

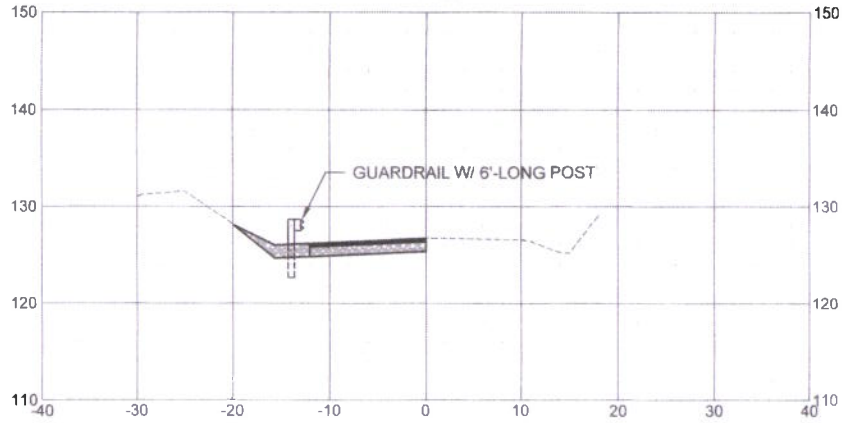
DANIEL J. MCINTIER — STATE OF WASHINGTON — 24696 — REGISTERED PROFESSIONAL ENGINEER
3/4/24

SECTION 33, T9N, R2W
CRP NO. 795

HAZEL DELL ROAD MP 1.76
RETAINING WALL
WALL PROFILE

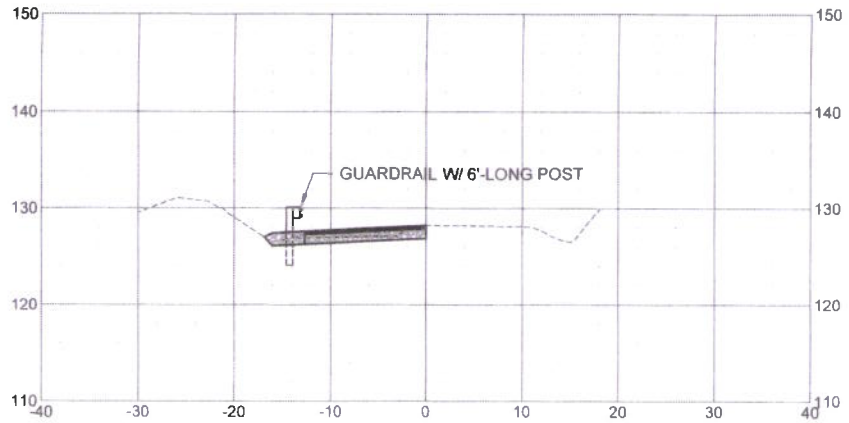
SHEET 7 OF 13

"H" LINE 18+85



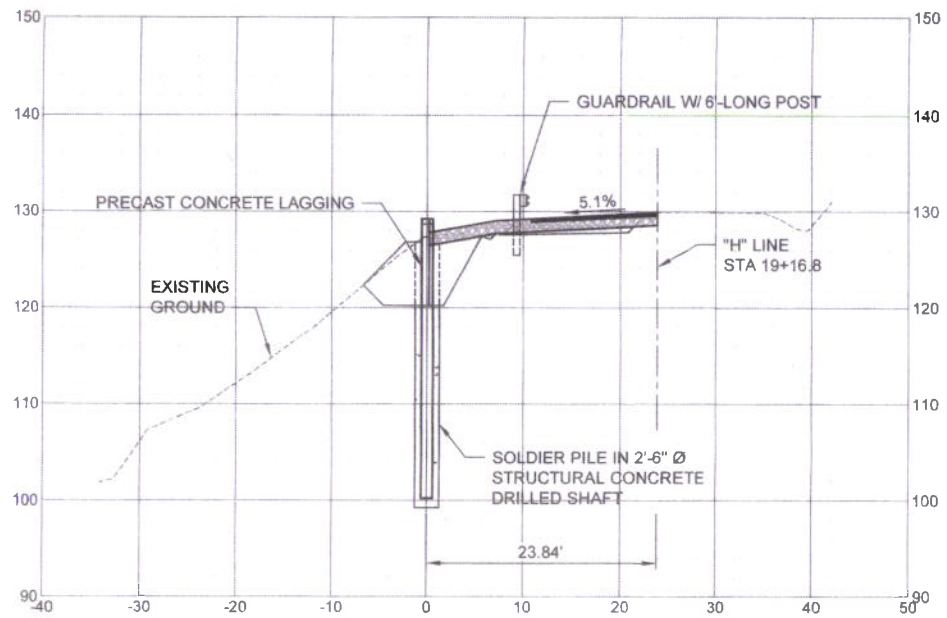
GUARDRAIL SECTION

"H" LINE 19+00



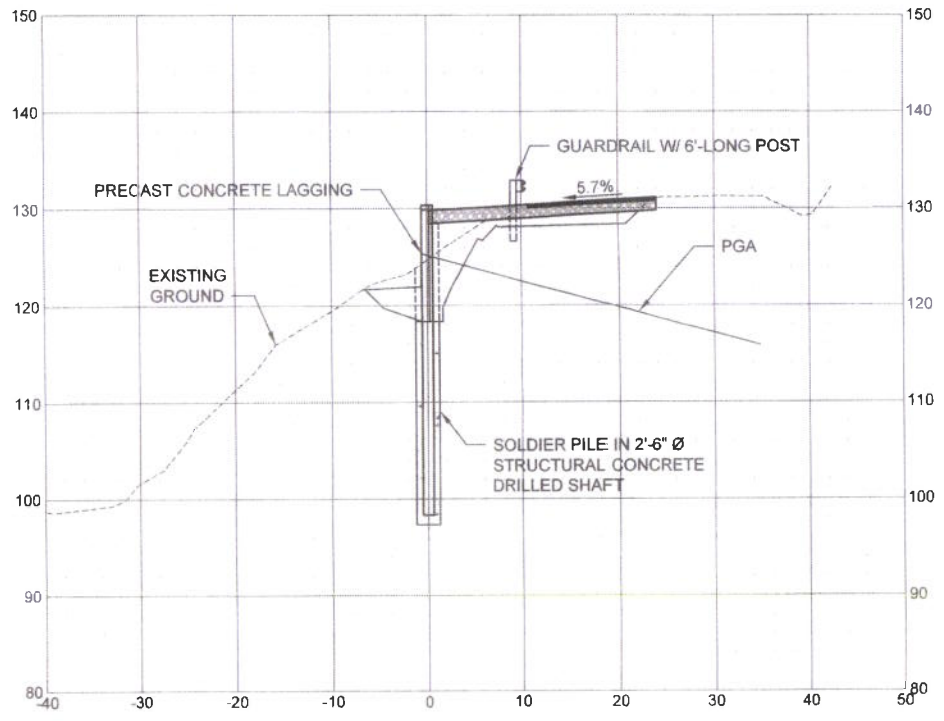
GUARDRAIL SECTION

WALL 1+10



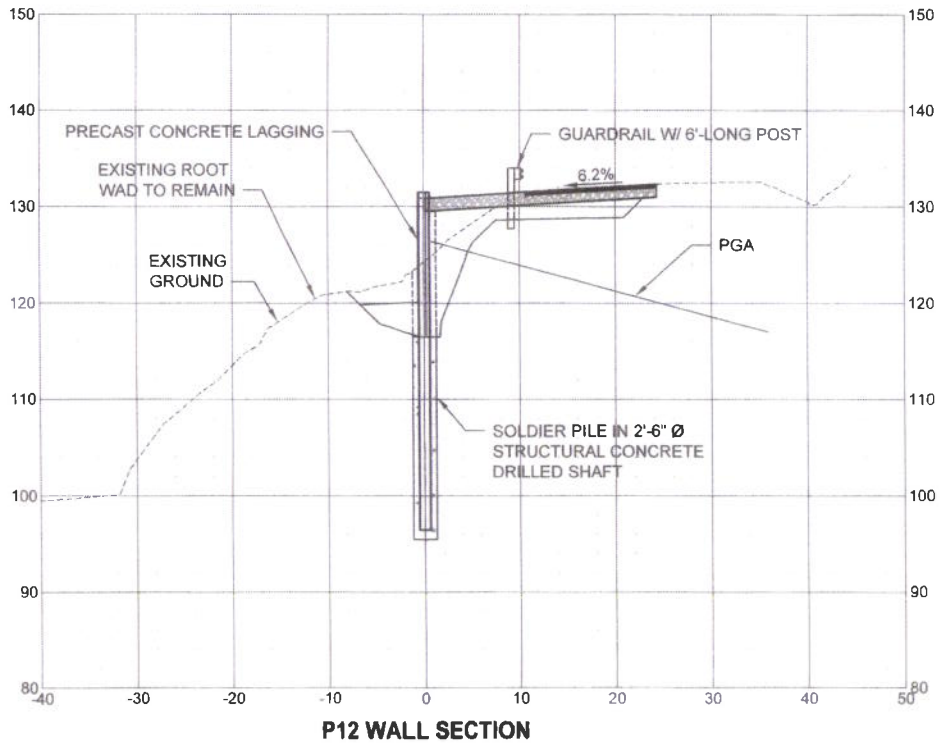
P16 WALL SECTION

WALL 0+98



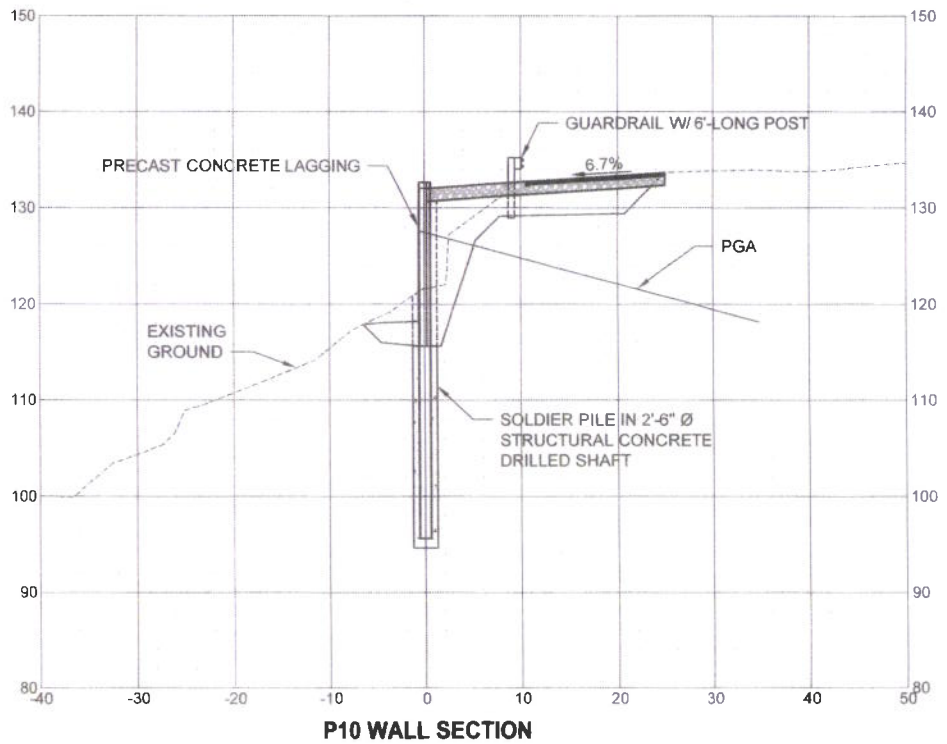
P14 WALL SECTION

WALL 0+86



P12 WALL SECTION

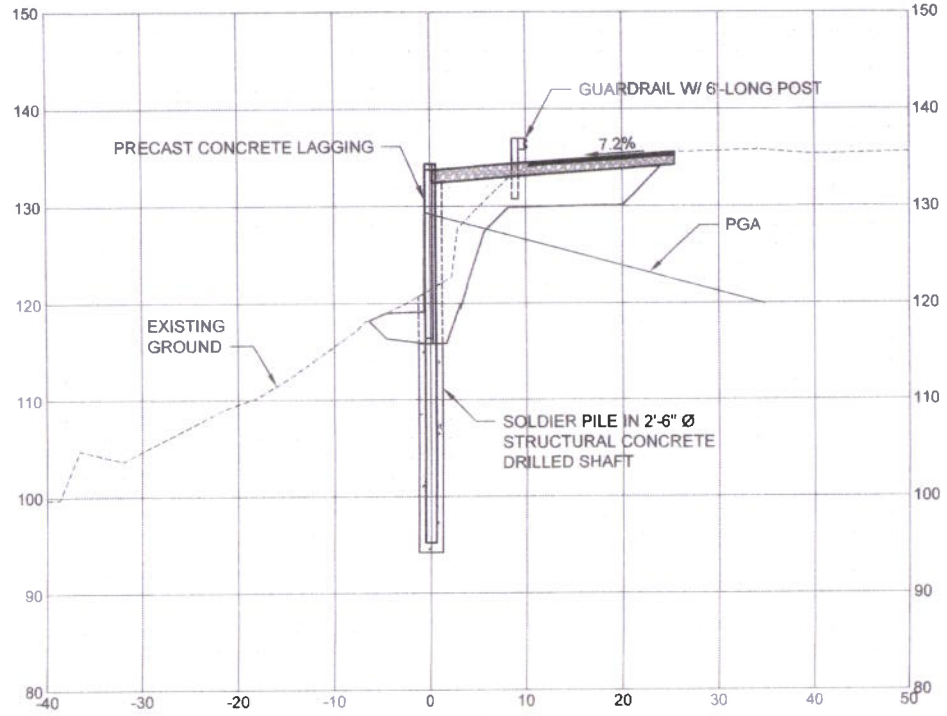
WALL 0+74



P10 WALL SECTION

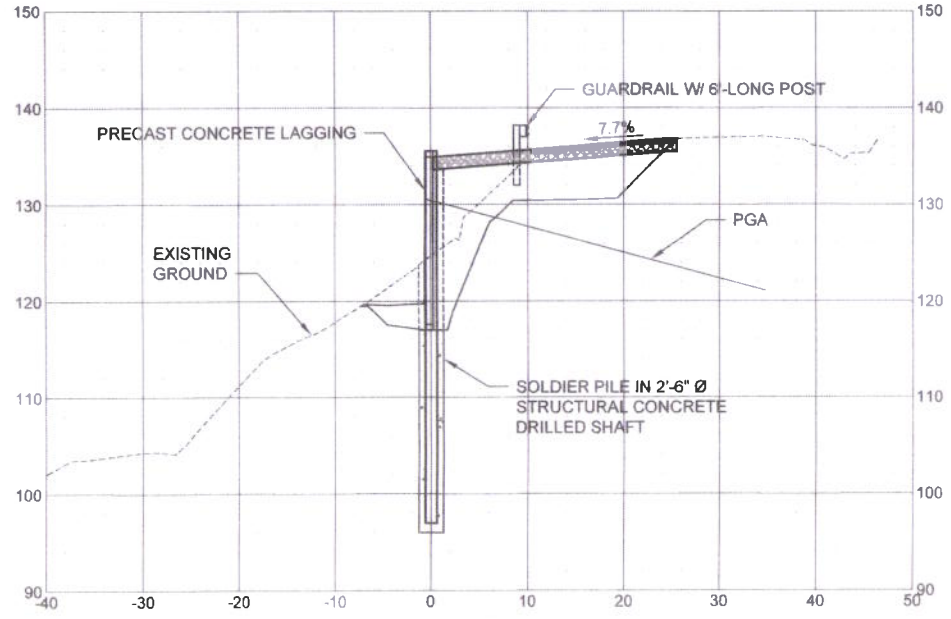
BRIAN BIERWAGEN 2/27/2024 PROJECT MANAGER DATE NILS HOVLAND 2/27/2024 DRAWN BY DATE BRIAN BIERWAGEN 2/27/2024 CHECKED BY DATE	HORIZ. SCALE: 1" = 10' VERT. SCALE: 1" = 10' PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD) COMPUTER FILE: PO2415022S02-Cross Sections.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214 Ph: 503.233.2400	DANIEL J. MCINTYRE STATE OF WASHINGTON 49696 REGISTERED PROFESSIONAL ENGINEER 3/6/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL GUARDRAIL AND WALL CROSS SECTIONS (1 OF 2)	SHEET 8 OF 13

WALL 0+56



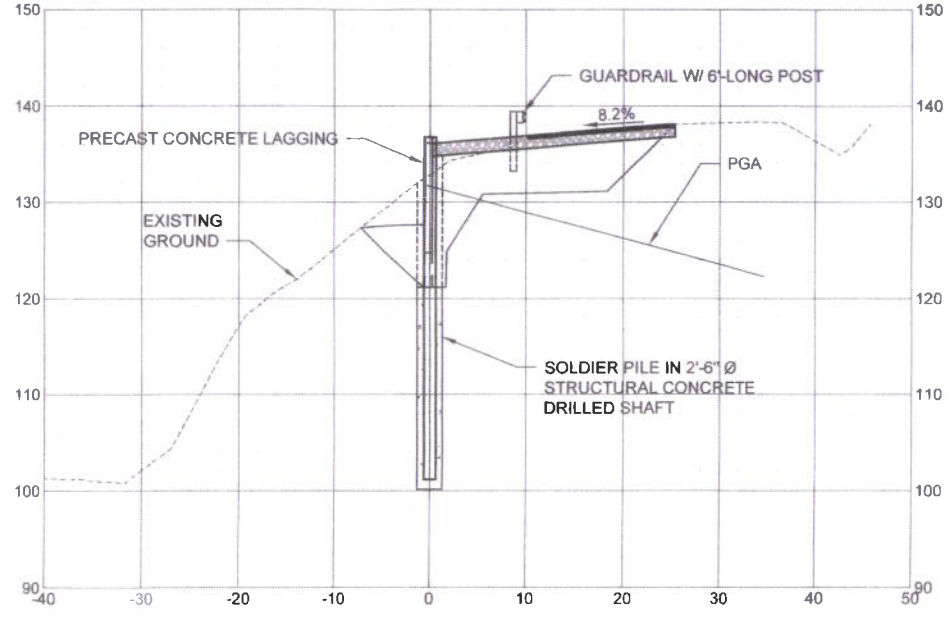
P7 WALL SECTION

WALL 0+44



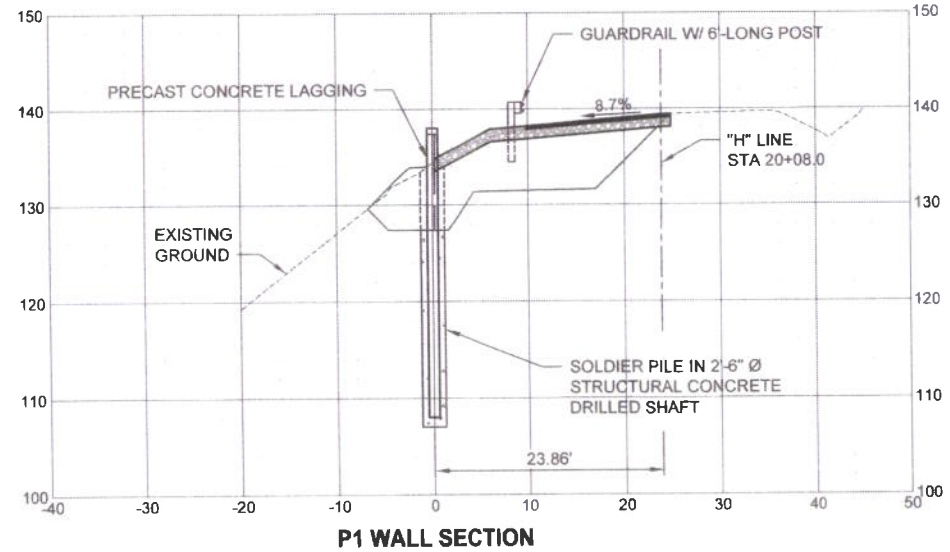
P5 WALL SECTION

WALL 0+32



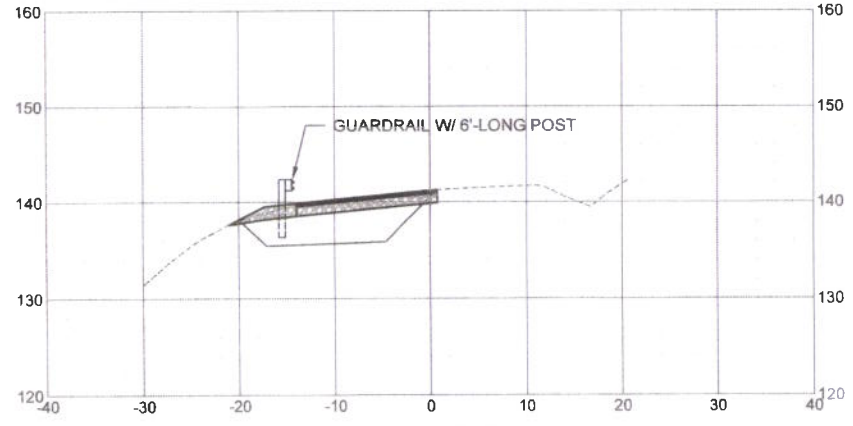
P3 WALL SECTION

WALL 0+20



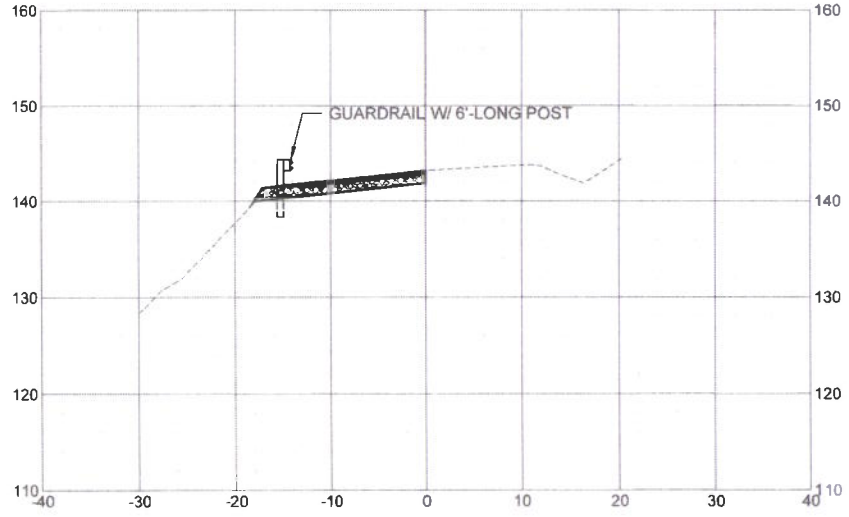
P1 WALL SECTION

"H" LINE 20+25



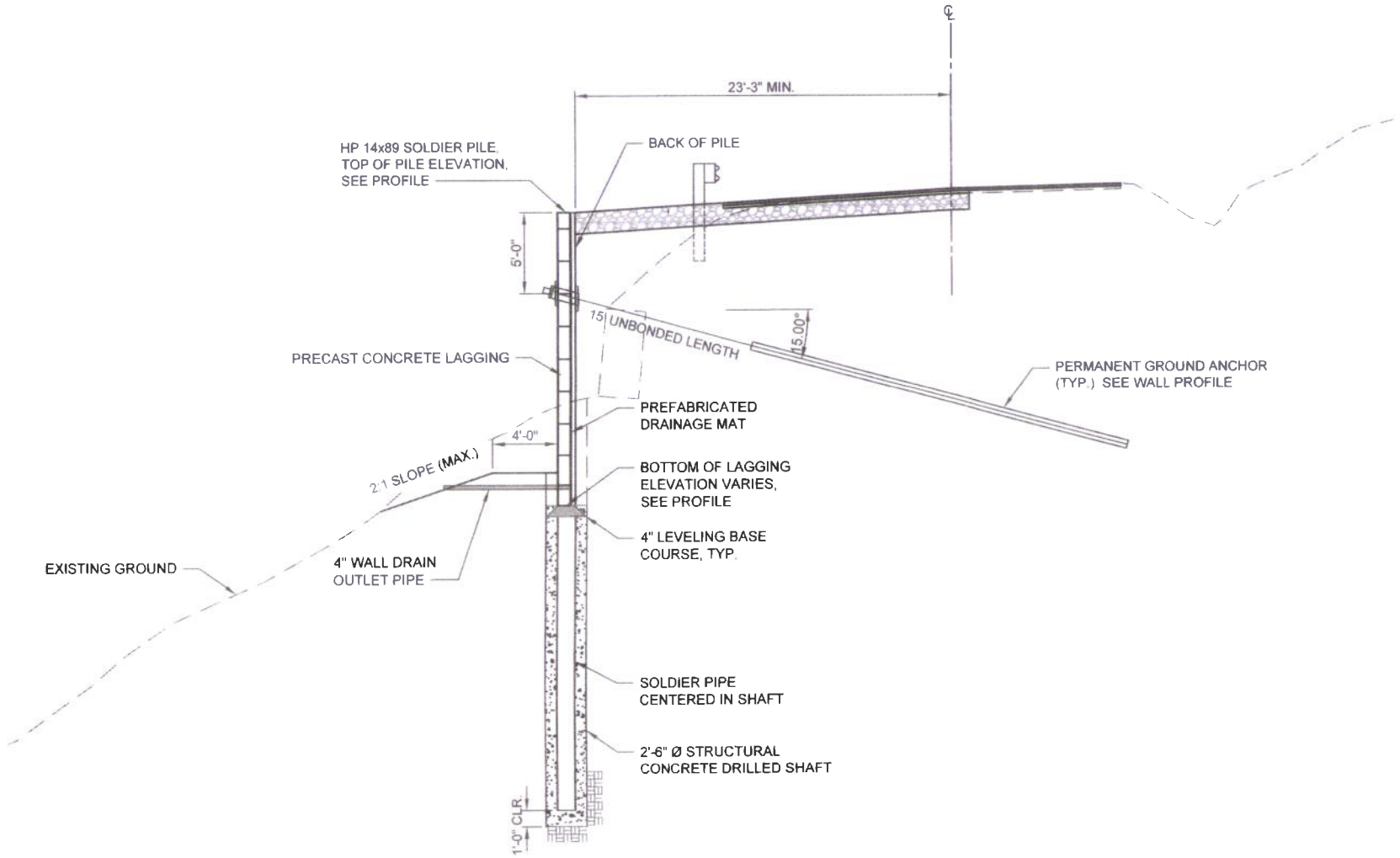
GUARDRAIL SECTION

"H" LINE 20+45



GUARDRAIL SECTION

BRIAN BIERWAGEN PROJECT MANAGER	2/27/2024 DATE	HORIZ SCALE: 1" = 10' VERT SCALE: 1" = 10'	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd. Suite 400 • Portland, OR 97214 Ph: 503.233.2400	DANIEL J. McINTYRE STATE OF WASHINGTON 49696 REGISTERED PROFESSIONAL ENGINEER 2/4/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL GUARDRAIL AND WALL CROSS SECTIONS (2 OF 2)	SHEET 9 OF 13
NILS HOVLAND DRAWN BY	2/27/2024 DATE	PROJECT ID: 1772 ROAD NO. 21300 (HAZEL DELL RD)							
BRIAN BIERWAGEN CHECKED BY	2/27/2024 DATE	COMPUTER FILE PO2415022S02-Cross Sections.dwg							

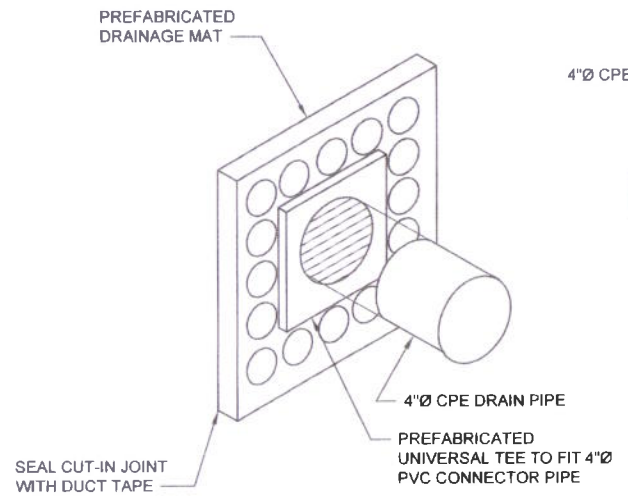


TYPICAL WALL SECTION

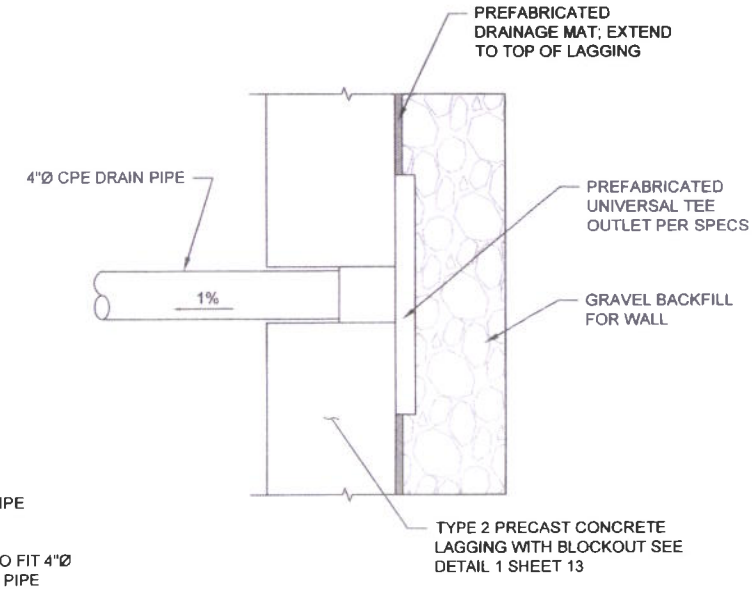
NOT TO SCALE

STRUCTURAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION DATED 2024 AND SPECIAL PROVISIONS. WALL IS DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.
2. PROVIDE ALL REINFORCING STEEL ACCORDING TO ASTM SPECIFICATION A706, OR AASHTO M31 (ASTM A615) GRADE 60.
3. PROVIDE STEEL SOLDIER PILES ACCORDING TO ASTM SPECIFICATIONS A572 GRADE 50.
4. PROVIDE CLASS 4000P - 3/8" CONCRETE FOR ALL SOLDIER PILE SHAFTS.
5. PROVIDE CLASS 4000 CONCRETE FOR PRECAST CONCRETE LAGGING.
6. PRODUCE WELDS ACCORDING TO THE LATEST EDITION OF AWS D 1.1 STRUCTURAL WELDING CODE - STEEL.
7. CONTRACTOR SHALL SECURE UPPER COURSES OF LAGGING IN PLACE WHERE LAGGING EXTENDS ABOVE THE GROUND LINE BEHIND THE WALL BY MORE THAN 1'-0". IF REQUIRED, THE CONTRACTOR SHALL SUBMIT PROPOSED DETAILS TO THE ENGINEER FOR APPROVAL.
8. THE LIFTING ANCHORS SHALL BE DESIGNED BY THE FABRICATOR / CONTRACTOR AND BE APPROVED BY THE ENGINEER.



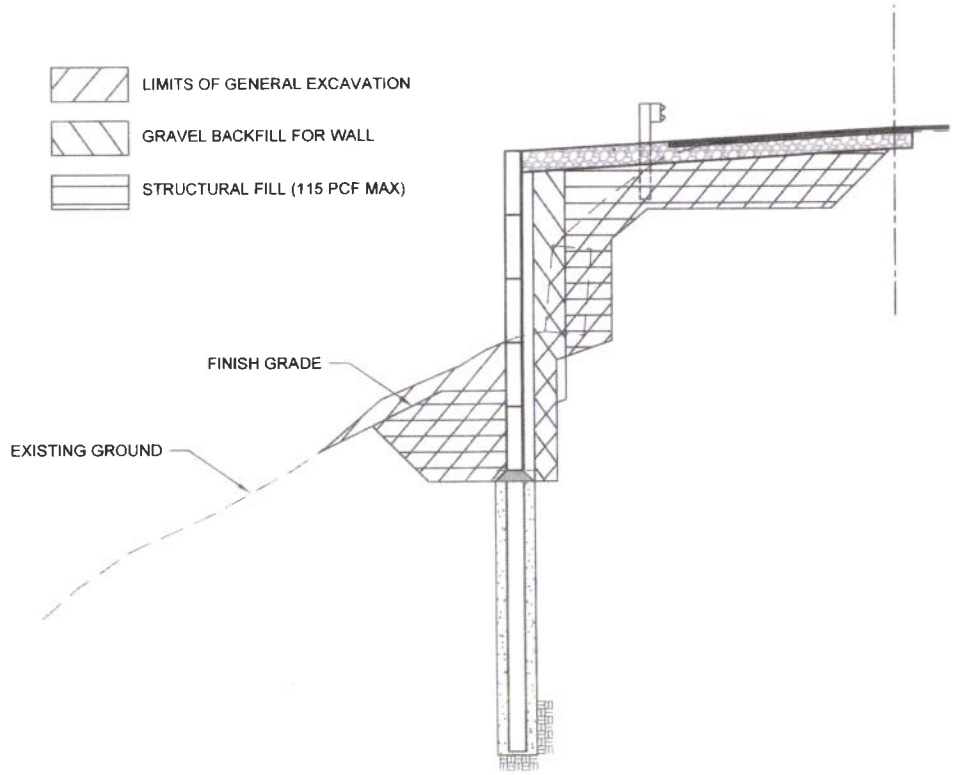
ISOMETRIC VIEW



SECTION VIEW

WALL DRAIN PIPE CONNECTION DETAIL

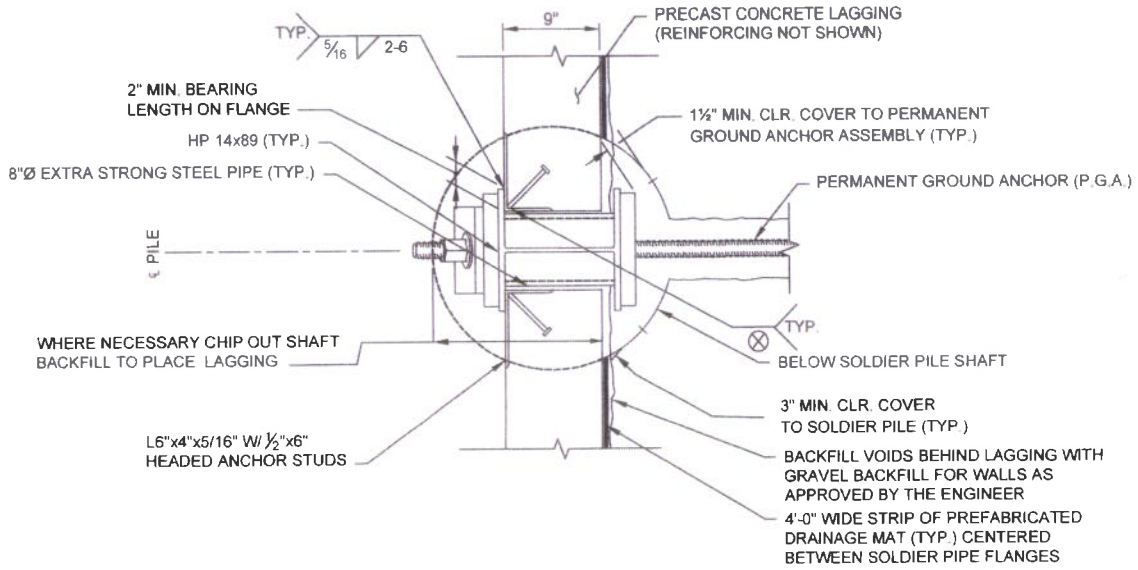
NOT TO SCALE



EXCAVATION AND BACKFILL LIMITS

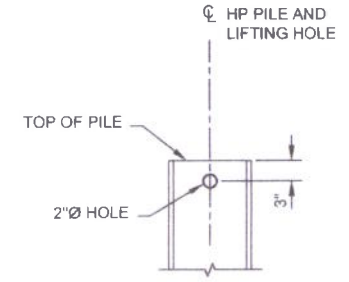
NOT TO SCALE

BRIAN BIERWAGEN PROJECT MANAGER 2/27/2024 DATE EMMA SUN DRAWN BY DATE DAN MCINTIER CHECKED BY 2/27/2024 DATE	HORIZ. SCALE: NOT TO SCALE VERT. SCALE: PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD) COMPUTER FILE: PO2415022S03-Section Details.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214 Ph: 503.233.2400	DANIEL J. MCINTIER STATE OF WASHINGTON 19896 REGISTERED PROFESSIONAL ENGINEER 3/8/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL TYPICAL WALL SECTION	SHEET 10 OF 13



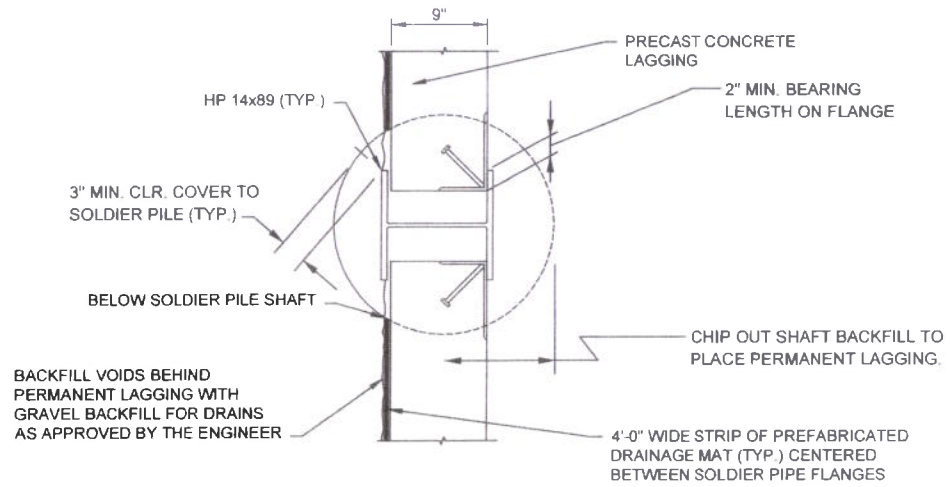
SOLDIER PILE WITH PERMANENT GROUND ANCHOR
PLAN

NOT TO SCALE



SOLDIER PILE LIFTING HOLE

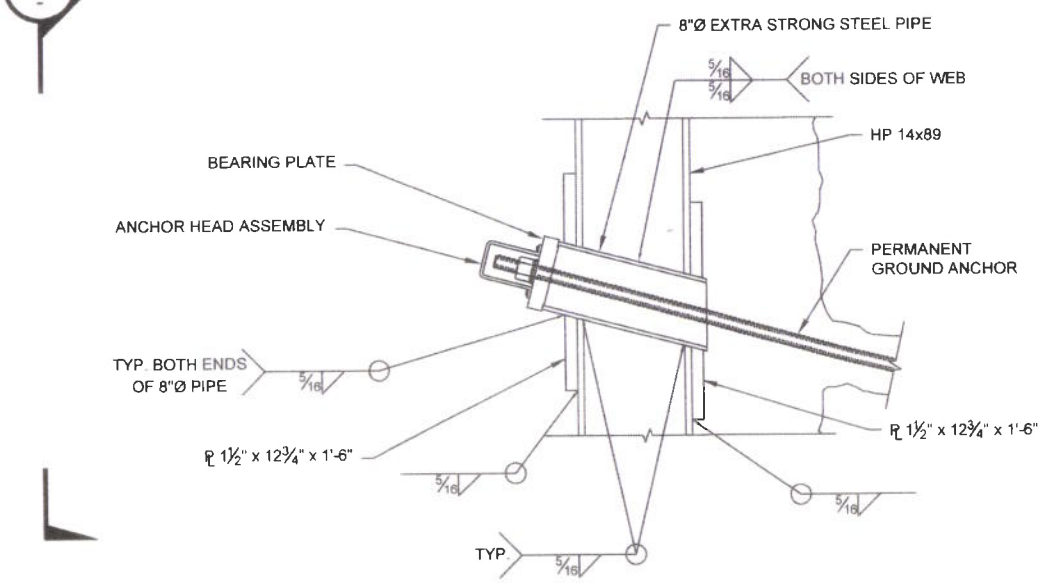
NOT TO SCALE



SOLDIER PILE WALL WITHOUT P.G.A.
PLAN

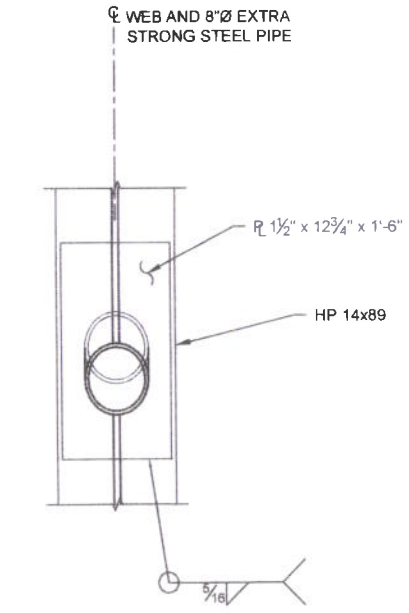
NOT TO SCALE

A



SOLDIER PILE WITH PERMANENT GROUND ANCHOR THROUGH WEB
ELEVATION

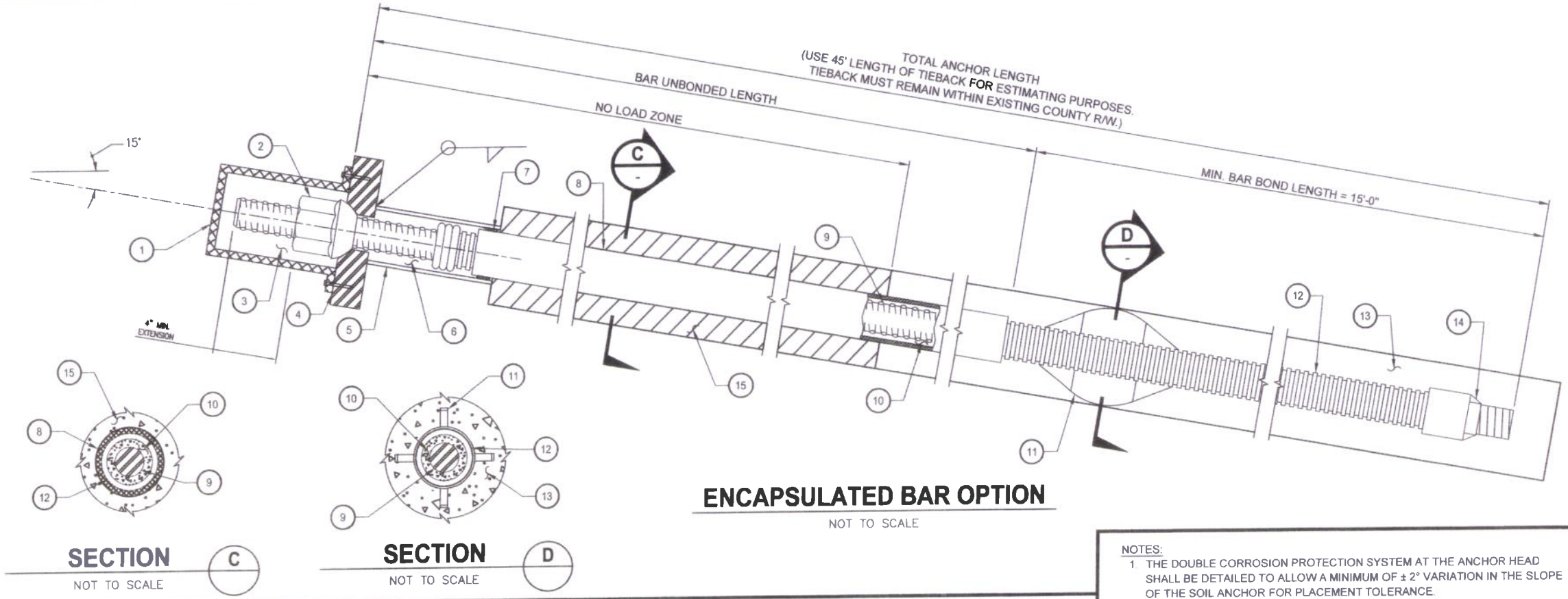
1" = 1'-0"



VIEW A

1" = 1'-0"

BRIAN BIERWAGEN PROJECT MANAGER	2/27/2024 DATE	HORIZ. SCALE: AS NOTED VERT. SCALE: AS NOTED PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD) COMPUTER FILE: PO2415022S03-Section Details.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd. Suite 400 • Portland, OR 97214 Ph: 503.233.2400	DANIEL J. McINTIER STATE OF WASHINGTON 49696 REGISTERED PROFESSIONAL ENGINEER 3/4/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL PILE DETAILS	SHEET 11 OF 13
EMMA SUN DRAWN BY	2/27/2024 DATE								
DAN MCINTIER CHECKED BY	2/27/2024 DATE								



ENCAPSULATED BAR OPTION

NOT TO SCALE

1. ANCHORAGE COVER
2. NUT
3. ANTICORROSION GREASE*
4. BEARING PLATE
5. TRUMPET
6. ANTICORROSION GREASE
7. SEAL
8. SMOOTH PVC BOND BREAKER
9. BAR
10. ENCAPSULATION GROUT
11. CENTRALIZERS
12. CORRUGATED PVC
13. ANCHOR GROUT
14. END CAP
15. NONSTRUCTURAL FILLER

* USE GROUT IF ANCHORAGE COVER IS EXPOSED.

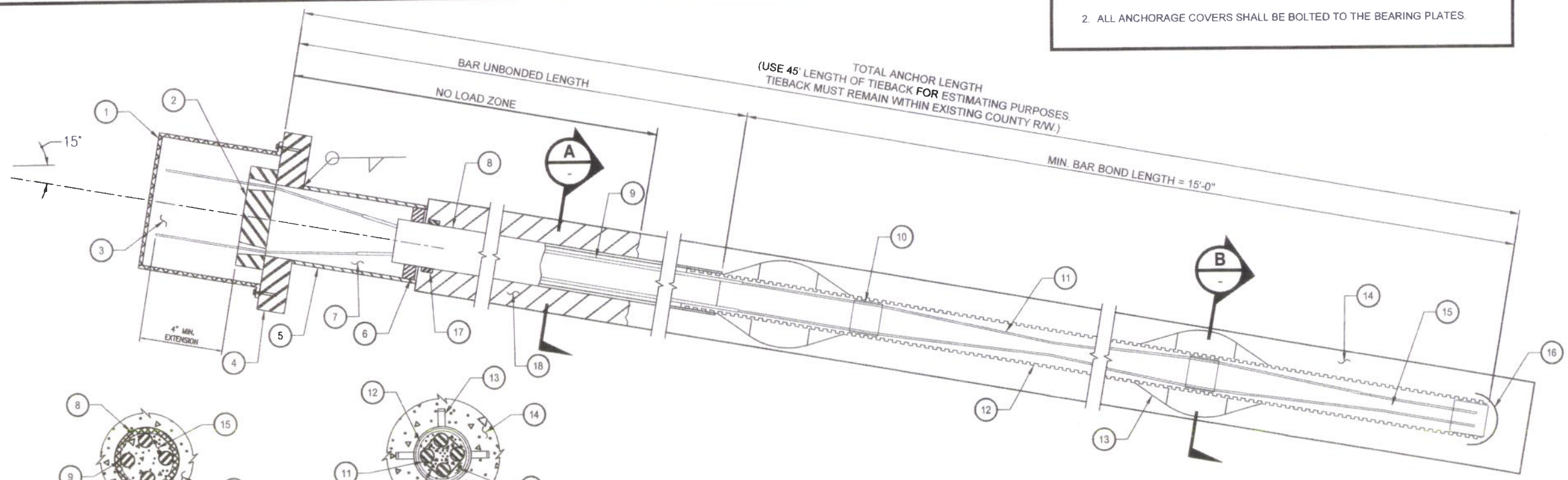
SECTION C

NOT TO SCALE

SECTION D

NOT TO SCALE

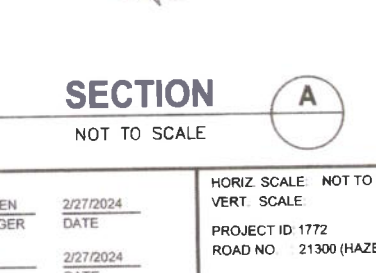
NOTES:
1. THE DOUBLE CORROSION PROTECTION SYSTEM AT THE ANCHOR HEAD SHALL BE DETAILED TO ALLOW A MINIMUM OF ± 2° VARIATION IN THE SLOPE OF THE SOIL ANCHOR FOR PLACEMENT TOLERANCE.
2. ALL ANCHORAGE COVERS SHALL BE BOLTED TO THE BEARING PLATES.



ENCAPSULATED STRAND OPTION

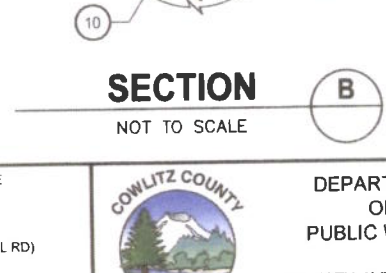
NOT TO SCALE

1. ANCHORAGE COVER
2. ANCHOR HEAD AND WEDGES
3. ANTICORROSION GREASE
4. BEARING PLATE
5. TRUMPET
6. SEAL
7. ANTICORROSION GREASE
8. PVC OR POLYETHYLENE TUBE
9. INDIVIDUALLY GREASED AND SHEATHED STRAND
10. SPACER
11. STRAND
12. CORRUGATED PVC
13. CENTRALIZER
14. ANCHOR GROUT
15. ENCAPSULATION GROUT
16. END CAP
17. TENSION RING TO RESIST SPLITTING FORCE OF DEFLECTED STRANDS.
18. NON-STRUCTURAL FILLER



SECTION A

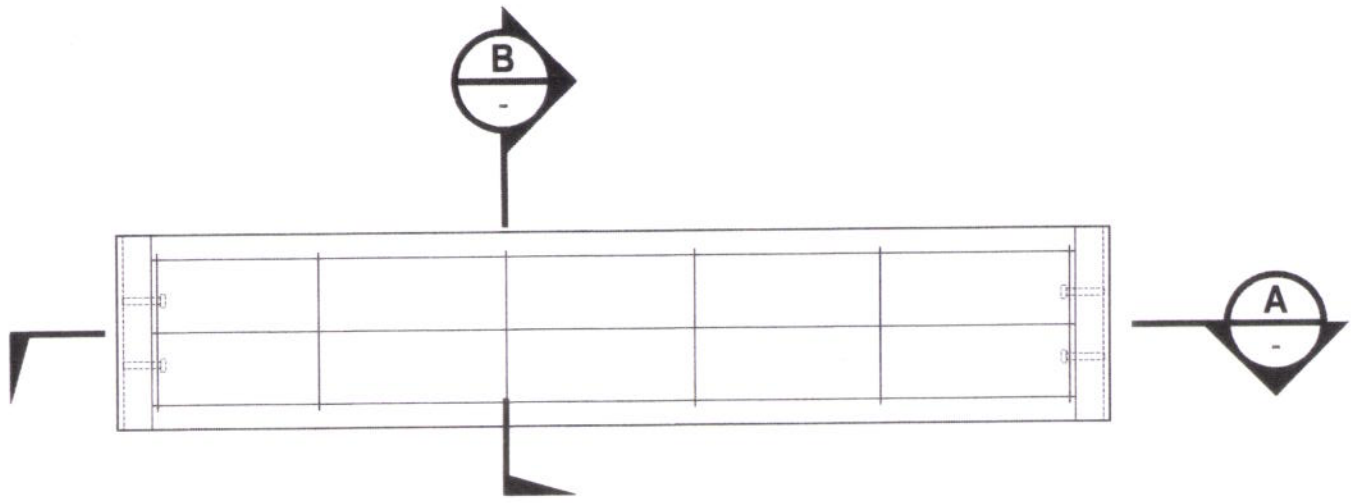
NOT TO SCALE



SECTION B

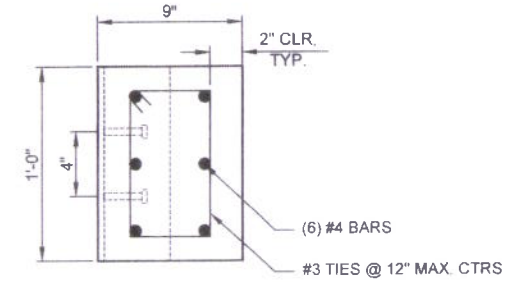
NOT TO SCALE

BRIAN BIERWAGEN PROJECT MANAGER	2/27/2024 DATE	HORIZ. SCALE: NOT TO SCALE VERT. SCALE: PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD) COMPUTER FILE: PO2415022S03-Section Details.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214 Ph: 503.233.2400	DANIEL J. McINTIER STATE OF WASHINGTON 49696 REGISTERED PROFESSIONAL ENGINEER 3/7/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL PERMANENT GROUND ANCHOR DETAILS	SHEET 12 OF 13
EMMA SUN DRAWN BY	2/27/2024 DATE								
DAN MCINTIER CHECKED BY	2/27/2024 DATE								

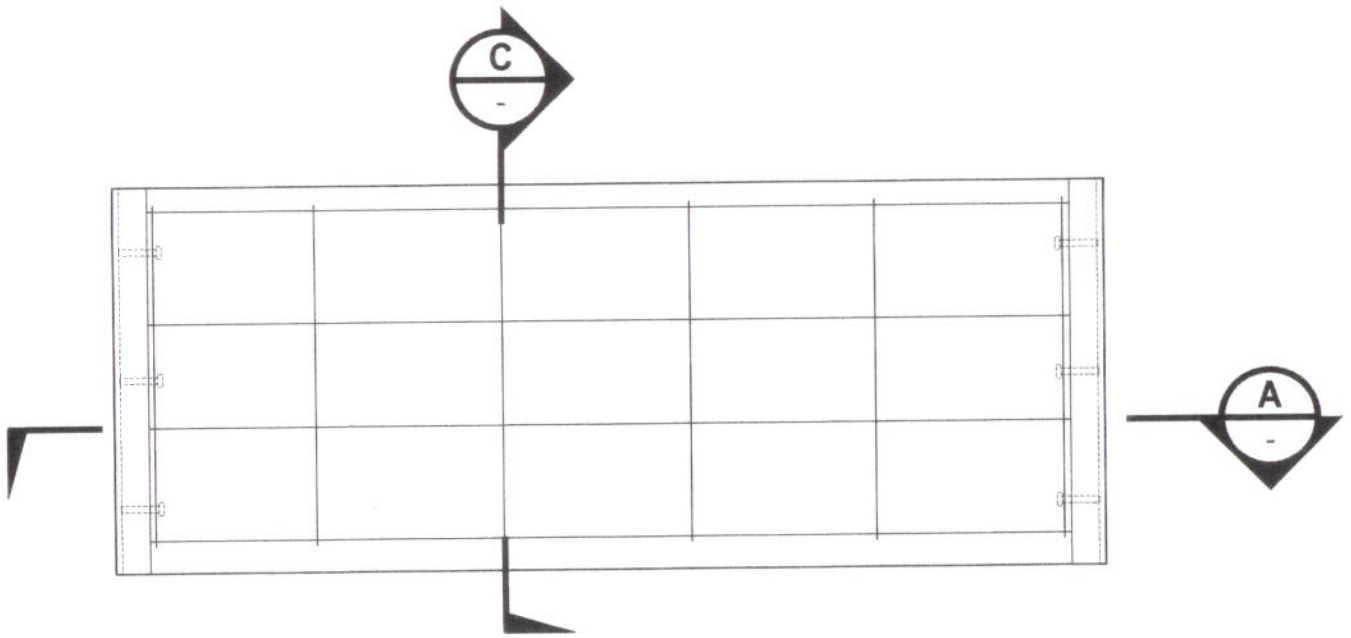


PRECAST CONCRETE LAGGING TYPE 1

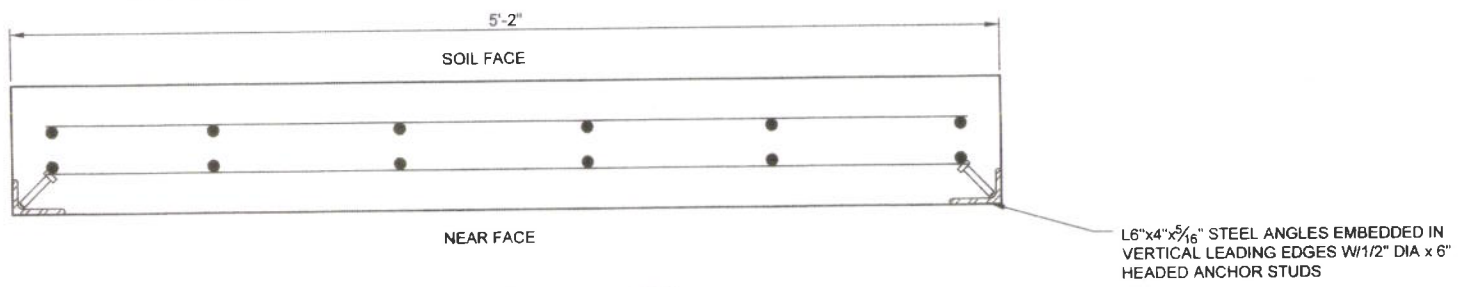
NOTE: L12, L65, L82, L90, & L108 ONLY



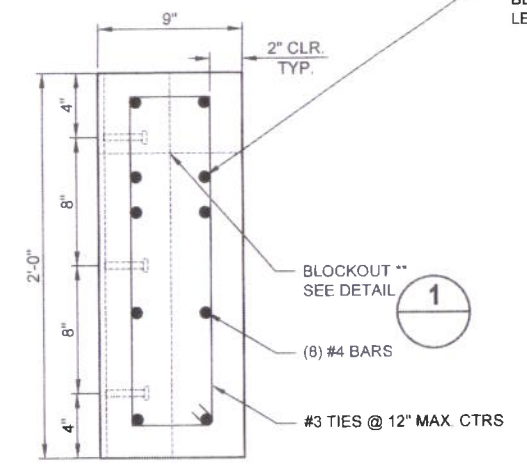
SECTION B
2" = 1'-0"



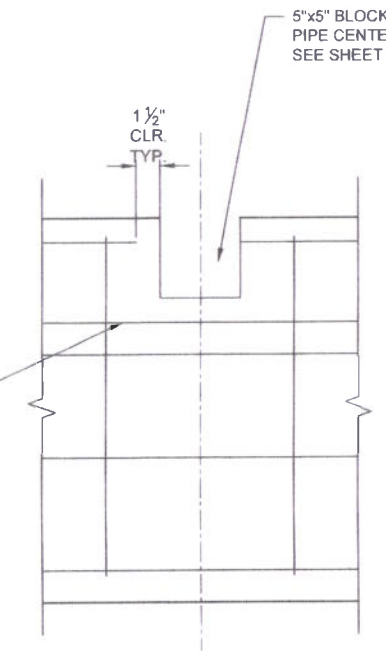
PRECAST CONCRETE LAGGING TYPE 2



SECTION A
2" = 1'-0"



SECTION C
2" = 1'-0"



DRAIN PIPE BLOCK OUT DETAIL ** 1**
2" = 1'-0"

** DRAIN PIPE BLOCK OUT DETAIL APPLIES TO PANELS L05, L11, L19, L28, L37, L46, L55, L64, L73, L81, L89, L96, L102, L107, L112

BRIAN BIERWAGEN PROJECT MANAGER 2/27/2024 DATE EMMA SUN DRAWN BY 2/27/2024 DATE DAN MCINTIER CHECKED BY 2/27/2024 DATE	HORIZ. SCALE: AS NOTED VERT. SCALE: AS NOTED PROJECT ID: 1772 ROAD NO.: 21300 (HAZEL DELL RD) COMPUTER FILE: PO2415022S03-Section Details.dwg	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 1600 13TH AVENUE SOUTH KELSO, WASHINGTON 98626	Parametrix 5 SE Martin Luther King Jr. Blvd, Suite 400 • Portland, OR 97214 Ph: 503.233.2400	DANIEL J. MCINTIER STATE OF WASHINGTON 49896 REGISTERED PROFESSIONAL ENGINEER 3/4/24	SECTION 33, T9N, R2W CRP NO. 795	HAZEL DELL ROAD MP 1.76 RETAINING WALL LAGGING DETAILS	SHEET 13 OF 13

APPENDIX B

TOPOGRAPHIC SURVEY

SITE PHOTOS:

PHOTOS WERE TAKEN ON 12/7/2022, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY.
ADDITIONAL PHOTOS ARE AVAILABLE UPON REQUEST

TAKEN ON EASTERLY SIDE OF THE ROAD, EAST OF LECKLER CREEK, LOOKING NORTHWESTERLY AT CONCRETE BLOCK WALL

TAKEN ON EASTERLY SIDE OF THE ROAD, NEXT TO LECKLER CREEK, LOOKING NORTHWESTERLY AT ROAD AND CONCRETE BLOCK WALL

TAKEN JUST EAST OF THE GUARD RAIL AT TOP OF SLOPE, NORTH OF THE CONCRETE BLOCK WALL, LOOKING SOUTH

TAKEN EAST OF THE ROAD, JUST NORTH OF THE CONCRETE BLOCK WALL, LOOKING SOUTHWESTERLY AT WALL AND TOP OF SLOPE

TAKEN EAST OF THE ROAD, JUST NORTHEAST OF THE CONCRETE BLOCK WALL, LOOKING SOUTH AT WALL, SLOPE, AND CREEK

PURPOSE OF SURVEY

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

COUNTY PROJECT NUMBER: 1772

VERTICAL DATUM

ELEVATION DATUM	NAVD 88
BENCHMARK	CONTROL POINT #11
LOCATION	AS SHOWN HEREON
ELEVATION	128.23 FEET

BASIS OF BEARINGS / HORIZONTAL COORDINATES / CONTROL SCHEME

WASHINGTON STATE PLANE, SOUTH ZONE (SPC 4602 WA S); UTILIZING GRID DISTANCES; SEE BELOW.

HORIZONTAL COORDINATES AND BASIS OF BEARINGS ARE BASED ON WASHINGTON STATE PLANE (SOUTH ZONE) - REFERENCE FRAME: NAD83 (2011) (EPOCH 2010.0000) - US SURVEY FEET. ALL DISTANCES ARE GRID AND WERE DETERMINED FROM NGS OPUS SOLUTIONS, WHICH WERE DERIVED FROM 2 HOUR MINIMUM GPS OBSERVATIONS ON CONTROL POINTS 1,7,8,13,65,85, AND 214 (NOT ALL SHOWN HEREON), UTILIZING THE FOLLOWING EXISTING BASE STATIONS:

PID	DESIGNATION	LATITUDE(°)	LONGITUDE(°)
DH4122	P690 MSH, SRIDGEWA2005 CORS GRP	N46°10'47.944"	W122°1'23.470"
DK4153	P446 KELSO, AIR, WA2007 CORS GRP	N46°06'56.369"	W122°5'33.975"
DK8346	P420 FANTASYFD, WA2004 CORS GRP	N46°35'18.952"	W122°5'156.733"
DH5821	P693 MSH, NWDOMEWA2004 CORS GRP	N46°12'37.142"	W122°1'208.394"
DN6068	GRMD GRAND MOUND CORS GRP	N46°47'43.735"	W123°01'21.286"
DH5824	P702 MSH, ELKRCKWA2004 CORS GRP	N46°18'00.585"	W122°2'044.271"
DH4131	P696 MSH, SESLPEWA2004 CORS GRP	N46°10'24.461"	W122°0'938.141"

CONTROL POINTS 1 AND 7 WERE THEN TIED TOGETHER USING STANDARD TRAVERSE TECHNIQUES. THE RESULTS OF WHICH WERE ADJUSTED TOGETHER IN A WEIGHTED, LEAST SQUARES ADJUSTMENT, UTILIZING STARNET SOFTWARE. AN AVERAGE PROJECT COMBINED SCALE FACTOR (0.9995288985) WAS CALCULATED FOR THE PURPOSES OF COMPARING GRID DISTANCES TO GROUND DISTANCES.
GRID DISTANCE OF 1000.00' = GROUND DISTANCE OF 1000.07'

THE CONVERGENCE ANGLE IS -1°45'37" AT CONTROL POINT NUMBER 11.

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 TRIMBLE R12I, SURVEY GRADE GPS UNITS. THE ANGULAR CLOSURE OF TRAVERSE MEETS STANDARDS AS SET FORTH IN WAC332-130-090. LINEAR CLOSURE AFTER AZIMUTH ADJUSTMENT IS GREATER THAN 1:10000. A LEAST SQUARES ADJUSTMENT OF THE DATA WAS PERFORMED.

NOTES

1) SEE FIELD NOTES: CCPWFB 2022-02 PG 82-85, 104-109, 116-121

2) SEE MY RECORD OF SURVEY (43/ROS/96) FOR ALL RIGHT OF WAY INFORMATION AND RESOLUTION NOTES.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
●	TEST BORING
○	POWER CONDUIT
⊥	GUY ANCHOR
⊙	UTILITY POLE
T	TELEPHONE PEDESTAL
	CONIFER TREE*
	CONIFER TREE CLUMP** (2 OR MORE TRUNKS FROM 1 SINGLE ROOT BALL)
	DECIDUOUS TREE*
	DECIDUOUS TREE CLUMP** (2 OR MORE TRUNKS FROM 1 SINGLE ROOT BALL)
	WETLAND FLAG (UNLESS OTHERWISE NOTED AS OHWL) DELINEATED BY OTHERS

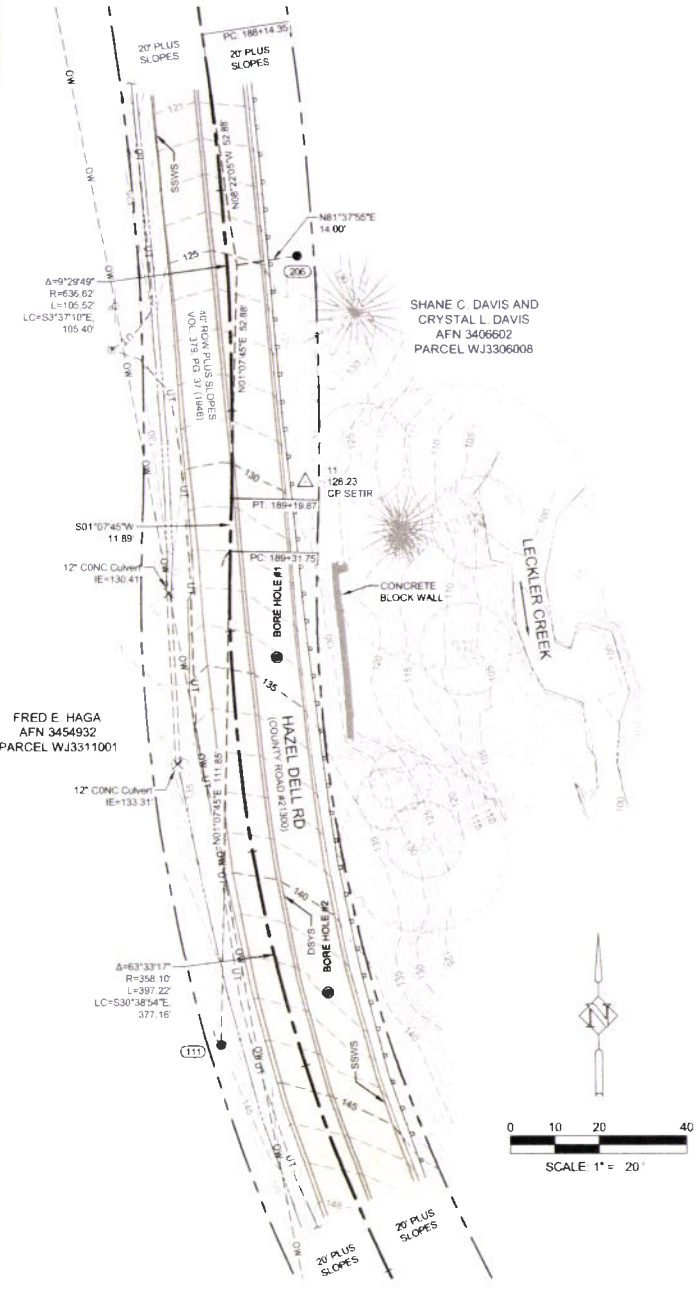
LINETYPE LEGEND

LINETYPE	DESCRIPTION
	DRAINAGE CULVERT
	DRAINAGE / ROAD DITCH
x x x x	FENCE, TYPE AS NOTED
	EDGE OF WATER
WET	EDGE OF WETLAND
OHW	ORDINARY HIGH WATER LINE
OW	OVERHEAD WIRE
UT	TELEPHONE LINE
	UTILITY LINE PAINT ENDS HERE, CONNECTION NOT LOCATED OR UNKNOWN
	GUARD RAIL ***
	BUILDING LINE
	FLOWLINE
	MAJOR CONTOUR - SPACED AT 5' INTERVALS
	MINOR CONTOUR - SPACED AT 1' INTERVALS

HATCH LEGEND

HATCH	DESCRIPTION
	EXISTING ASPHALT SURFACE
	EXISTING GRAVEL SURFACE

* 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.
*** NOTE THAT INDIVIDUAL GUARD RAIL POSTS WERE NOT LOCATED - THIS IS A LINETYPE ONLY.



INDEX LOCATION

NW1/4 SW1/4, S33 T9N R2W W.M.

ABBREVIATIONS:

AFN	= AUDITOR'S FILE NUMBER
CCPWFB	= COWLITZ COUNTY PUBLIC WORKS FIELD BOOK
CONC	= CONCRETE PIPE
DSYS	= DOUBLE SOLID YELLOW PAINT STRIPE
IE	= INVERT ELEVATION
POST	= POINT ON SEMI TANGENT
REBAR	= REINFORCING BAR
RPC	= RED PLASTIC CAP
SSWS	= SINGLE SOLID WHITE STRIPE
W/	= WITH
YPC	= YELLOW PLASTIC CAP

MONUMENT TABLE

POINT	NORTHING	EASTING	DESCRIPTION	ORIGIN	STATION	OFFSET
9 *	332568.833	1021942.875	MAGNETIC NAIL WITH WASHER STAMPED "COWLITZ COUNTY CONTROL"	THIS SURVEY	194+30.48	16.07' R
10 *	332729.886	1021727.790	5/8" REBAR W/RPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	191+64.49	11.15' R
11	332970.122	1021585.166	5/8" REBAR W/RPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	189+15.95	16.80' L
12 *	333356.629	1021593.703	5/8" REBAR W/RPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY	185+19.90	14.07' R
111	332842.722	1021685.867	1-1/2" IRON PIPE	CCPWFB 1943-04	190+40.16	17.06' R
206	333021.340	1021683.196	1-1/2" IRON PIPE	CCPWFB 1943-04	188+65.98	16.15' L

* THIS MONUMENT IS NOT SHOWN GRAPHICALLY HEREON

MONUMENT LEGEND:

● - FOUND MONUMENT AS NOTED
PROTECT / PRESERVE WHERE POSSIBLE
- IF TO BE DESTROYED: A PERMIT TO REMOVE A MONUMENT MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES. THEN REPLACE MONUMENT AFTER CONSTRUCTION

△ ELEV. DESC. - TEMPORARY CONTROL POINT

- TEMPORARY BENCH MARK

NOTES:
1. ALL PIPE DIAMETERS ARE INSIDE DIMENSIONS, 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 (1/26/2023-2/1/2023).

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 NOT 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 11/15/2022 UNDER TICKET NUMBER 22496406

FOLLOWING IS A LIST OF UTILITY PROVIDERS NOTIFIED:

DISTRICT	COMPANY	MARKING CONCERNS	CUSTOMER SERVICE	REPAIR
CCWAUG2	COMCAST CABLE	(800)778-9140	(800)934-6489	(855)537-6296
CCWPUD03	COWLITZ COUNTY PUD	(360)501-9546	(360)501-9546	(360)501-9546
QLNWA16	CTLQL-CENTURYLINK	(800)778-9140	(800)283-4237	(800)573-1311

* - DENOTES ASBUILT MAPS RECEIVED

3/8/2023

PAUL D. GALLI 41076 REGISTERED PROFESSIONAL LAND SURVEYOR

CA	N/A
PROJECT MANAGER	DATE
PDG	3/8/2023
DRAWN BY	DATE
CWB, BH	3/7/2023
CHECKED BY	DATE

HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1' CONTOURS

PROJECT ID: 1772
ROAD NO.: 21300

COMPUTER FILE: 1772-HAZEL DELL TOPO MP 1.76.dwg
FIELD BOOK(S): 2022-02

COWLITZ COUNTY WASHINGTON

DEPARTMENT OF PUBLIC WORKS
1600 13TH AVENUE SOUTH
KELSO, WASHINGTON 98626

LOCATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 33, TOWNSHIP 9 NORTH, RANGE 2 WEST, WILLAMETTE MERIDIAN
COWLITZ COUNTY, WASHINGTON
FIELD WORK DATE: 11/15/2022 TO 2/1/2023 (ORIGINAL TOPO/ROW), 3/6/2023 (ADDITIONAL TOPO)

HAZEL DELL ROAD
MILEPOST 1.78
TOPOGRAPHIC SURVEY
SLIDE REPAIR

SHEET 1 OF 1

APPENDIX C

GEOTECHNICAL DESIGN RECOMMENDATIONS

Foundation Engineering, Inc.
Professional Geotechnical Services

Memorandum

Date: February 8, 2024

To: Chris Andrews, Project Manager/Engineer
Cowlitz County Department of Public Works

From: Bill Nickels, P.E., G.E.
Mel McCracken, P.E., G.E.

Subject: Geotechnical Design Recommendations

Project: Hazel Dell Road Retaining Wall
Project No.: 2231011

Exp. 9-16-25

We have completed the requested geotechnical investigation for the above-referenced project. This memorandum includes a summary of the field work, a discussion of the site conditions, and the results of the laboratory testing and engineering analysis. Geotechnical recommendations for the design of a tie-back retaining wall are provided.

There are numerous values in geotechnical investigations that are approximate including calculated parameters, measured lengths, soil layer depths and elevations, and strength measurements. For brevity, the symbol "±" is used throughout this report to represent the words approximate or approximately when discussing these values.

BACKGROUND

Last spring, we visited the site where a ±30-foot-wide section of slope between Hazel Dell Road and Leckler Creek failed, leaving a ±6 foot high, near vertical scarp at the guard rail. Site location is shown on the Vicinity Map on Figure 1A (Appendix A). The slope from the road to the creek is steeper than 1(H):1(V). The slope failure appears to have resulted from erosion from the creek, and a tree and roots that have fallen into the creek. As temporary mitigation, County crews installed a block wall just downslope to support the edge of the road.

A new, permanent wall is proposed for long-term mitigation. Several wall alternatives were evaluated and are discussed in a subsequent section of this memorandum. A soldier pile wall constructed downslope of the block wall was ultimately selected. The permanent wall will accommodate possible future roadway widening.

SUBSURFACE INVESTIGATION

Two exploratory boreholes (BH-1 and BH-2) were drilled at the site on January 23, 2023, using a truck-mounted, CME 75 drill rig with mud-rotary drilling techniques. BH-1 was drilled for the current mitigation work to a depth of ±51.5 feet. BH-2 was drilled for a smaller slide to the south (see discussion below) to a depth of ±26.5 feet. Both borings were drilled in the northbound travel lane of Hazel Dell Road. The approximate borehole locations are shown on Figure 2A (Appendix A).

Samples were attempted at 2.5-foot intervals in the upper ±20 feet of BH-1 and at 5-foot intervals thereafter. Disturbed samples were obtained with a split-spoon sampler in general accordance with ASTM D1586. The Standard Penetration Test, performed in conjunction with split-spoon sampling, provides an indication of the relative stiffness or density of the soils. A relatively undisturbed Shelby tube sample was retained in BH-1 from ±7.5 to 9.5 feet. No rock coring was completed. No inclinometer casing or piezometers were installed in the borings.

The boreholes were continually logged by a representative of our firm during drilling. The final boring logs (Appendix B) were prepared based on a review of the field logs, an examination of the soil samples in our office, and the results of laboratory testing on selected samples.

SITE CONDITIONS

Surface Features and Vegetation

Hazel Dell Road is aligned approximately north to south at this location. Immediately west (uphill) of the road there is a shallow, narrow ditch with a cut slope above. The slope above the roadway is vegetated with small fir and deciduous trees, and low ground cover including grass and ferns. A driveway is located immediately upslope of the slide area.

The landslide impacts a ±40-foot long section of the northbound (downhill) shoulder and embankment. No tension cracks were observed extending into the asphalt travel lane. The terrain below the road slopes steeply down to the east and the scarp extends for another ±10 feet north and ±15 feet south. The surrounding slopes are well vegetated with blackberries, grass, ferns, and trees. In the area upslope of the landslide, quarry rock fill is retained by a temporary concrete block wall.

A shallower slump is located a short distance south of the primary slide area. The slump is not currently impacting the roadway.

Subsurface Conditions

BH-1 was drilled within the northbound travel lane of Hazel Dell Road at the existing landslide. The paved surface elevation at BH-1 is El. 134.0.

The exploration encountered a pavement section consisting of ±12 inches of asphaltic concrete (AC) over ±12 inches of dense crushed rock (base rock). The base rock is underlain by medium stiff organic, sandy silt to a depth of ±5 feet. Organics were observed in the sandy silt consisting of wood fragments. The silt is underlain by colluvium consisting of very loose to medium dense silty rock fragments with scattered organics to ±50 feet (±El. 84.0). Some cobble to boulder sized rock fragments were encountered within the colluvium. The density and gradation of the colluvium was highly variable. Medium dense silty sand with some gravel and scattered organics extended below the colluvium to ±51.5 feet (±El. 82.5), the limits of the exploration. The gravel was subrounded to rounded, suggesting the material may be alluvium.

BH-2 was also drilled within the northbound travel lane of Hazel Dell Road, south of the primary landslide, near a smaller slump off the shoulder of the roadway. The paved surface elevation at BH-2 is El. 142.0.

BH-2 was drilled south of the primary landslide, near a smaller slump off the shoulder of the roadway. The exploration encountered a pavement section consisting of ±10 inches of asphaltic concrete (AC) over ±2.2 feet of dense crushed rock (base rock). The base rock is underlain by colluvium to ±26.5 feet (±El. 115.5) the limits of the exploration. The colluvium consisted of loose to medium dense, silty rock fragments. The rock fragments include siltstone and sandstone and are typically sand to gravel sized.

Groundwater

Mud-rotary drilling methods used in the explorations did not permit measurement of the groundwater level in the borings at the time of drilling. However, we anticipate the groundwater level in the vicinity of the site will match the water level in the creek, ±30 feet below the roadway.

LABORATORY TESTING

The laboratory work included natural water contents, percent fines and Atterberg limits tests to classify the soils and estimate their overall engineering properties. Laboratory test results are summarized in Table 1C (Appendix C). The water contents are also included on the boring logs (Appendix B).

LANDSLIDE EVALUATION AND DISCUSSION OF LANDSLIDE MITIGATION OPTIONS

Landslide Evaluation

Surface observations suggest the instability was initiated by a large rain event that is expected to have influenced groundwater levels and the flow in Leckler Creek at the toe of the slope. The temporary block wall that is currently being used for supporting the outer edge of the road embankment is not expected to provide long-term stability on the steep slope.

The typical section used for our evaluation is shown in Figure 3A, (Appendix A). Stabilization of the slope is expected to address the following that are contributing to the instability: the steep slope configuration, elevated groundwater levels, relatively loose soil conditions, and potential for erosion or undercutting at the toe of the slope by the creek. The primary slope failure mode appears to be relatively shallow slope failures on the steepened slope, similar to that observed last year. We set failure boundaries to assist in evaluation of the global stability of the slope and back-calculated strength parameters for the soils. Based on the results of the subsurface exploration, we assigned slightly lower strength values to the outer ±10 feet of the soil profile.

Mitigation Options

We considered two wall alternatives for the repair. The first was a larger block wall or mechanically stabilized earth (MSE) wall system and the second was a soldier pile wall. The following sections provide a brief discussion of each option.

Option 1 – MSE Wall. The gravity or MSE wall approach would be appropriate if shallow bedrock was encountered. However, the site is underlain by a deep deposit of colluvium that is expected to provide relatively poor foundation support for this wall type. Additionally, construction for this wall type would require excavation of the full road width and we understand that maintaining a single lane of traffic during construction is preferred for the repair. Therefore, this option was not evaluated further.

Option 2 – Tie-back Soldier Pile Wall. The soldier pile wall option will be able to transfer loads deeper into the soil profile while minimizing the required excavation and roadway impacts. Based on an exposed wall height of up to 15 feet, the wall will also include tie-back anchors. We understand that predrilled, grouted-in-place HP pile sections with precast concrete lagging will be used to construct the wall. Construction of the soldier pile wall is expected to be feasible while maintaining one lane of traffic. Therefore, this is the preferred mitigation option.

ENGINEERING ANALYSIS AND DESIGN RECOMMENDATIONS

Global Stability

We completed slope stability analysis using SLIDE 5.0 software. Strength parameters for the soils were selected based on engineering judgment, correlations with the SPT N-values, and slope stability back-calculation along the assumed failure surface for the current conditions. Our analysis also included an assumed water level depth of 30 feet. The analysis results indicate the soldier pile wall has a global factor of safety greater than 1.4 with the assumed ground water conditions. However, the factor of safety drops to 1.2 when the ground water level is elevated within 7 feet of the ground surface at the base of the wall. Results of the analyses are illustrated in Figure 4A and Figure 5A (Appendix A).

Axial Resistance

The soldier piles will be installed in ±2 to 2½-foot diameter prebored holes. A typical pile length of 35 feet was used to seat the tips of the piles into the stiffer colluvium. We analyzed the axial capacity of a 2-foot diameter prebored pile. A minimum pile embedment depth of 20 feet below the base of the wall was assumed.

Based on the anticipated axial loads, the analysis suggests the axial resistance will not govern the design of the soldier piles. Rather, the embedment depth will be governed by the need to develop fixity and minimize deflection under lateral loading.

Lateral Earth Pressure

The lateral earth pressure for the new wall was evaluated considering both a cantilever and tie-back wall configuration. The cantilever wall is expected to primarily retain crushed rock backfill for wall heights of 7.5 feet or less. The taller tie-back wall will retain crushed rock backfill and colluvial soil.

The cantilever wall earth pressure was estimated using the Simplified Earth Pressure Distribution-Figure 3.11.5.6-1 provided in AASHTO (2020). An active earth pressure coefficient (k_a) of 0.30 is recommended for design assuming an average friction angle (ϕ) of 33 degrees over the height of the wall. A moist unit weight of 115 pcf is recommended for the retained material. These soil parameters are also recommended for design of the tie-back wall. The tie-back wall should be designed using the Apparent Earth Pressure Distribution as shown on Figure 3.11.5.7.1-1a provided in AASHTO (2020). A summary of the earth pressures for the tie-back wall is provided in Figure 6A (Appendix A).

Mononobe-Okabe (M-O) analysis was completed for the wall to calculate a seismic active earth pressure coefficient (k_{ae}). For the analysis, 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. The allowable seismic wall displacement was assumed to be up to 1 inch. For the 1,000-year return seismic event, we used a design peak horizontal acceleration (k_h) of 0.17g. This value is approximately one half the peak ground acceleration (PGA) of 0.34g at the ground surface estimated by multiplying the USGS PGA of 0.27g on rock by an AASHTO site factor (F_{pga}) of 1.25 (assuming an AASHTO Site Class D).

The traffic surcharge was estimated assuming a nominal 2-foot soil surcharge having a unit weight of 125 pcf. This corresponds to a uniform horizontal surcharge pressure of 75 psf using k_a of 0.3.

The passive resistance in the colluvium for the soldier piles can be calculated using a nominal uniform passive resistance based on Figure 3.11.5.6-1 provided in AASHTO (2020). A passive earth pressure coefficient k_p of 1.5 is appropriate for design assuming an average slope of 24 degrees below the wall. We have assumed that the design grade at the toe of the wall will be 3 feet lower than the existing ground surface.

Within the lagged zone, the earth pressure acts over a tributary area equal to the soldier pile spacing. We understand a typical pile spacing of 6 feet will be used for the wall.

For Load Factor Resistance Design, the appropriate load factors (γ_p) provided in AASHTO Table 3.4.1-2 should be applied to the nominal loads to calculate the factored lateral earth loads and surcharge pressures. Selection of the appropriate load factors are dependent on the load case being analyzed.

PY Wall Parameters

Table 1A (Appendix A) provides parameters for use in PY Wall analysis. The PY Wall analysis was used to evaluate deflections, tip fixity, and stresses in the soldier piles. Our analysis suggests that cantilever wall configurations may be considered for wall heights of 7.5 feet or less. The analysis for the tie-back walls suggests that total wall deflections of 0.25 inch are anticipated.

Tie-Back Anchors

Tie-back anchors (also referenced as permanent ground anchors) will consist of drilled-and-grouted anchors extending into the colluvium. Solid bar or strand tie-back anchors may be used. Tie-back anchors can be constructed using a variety of materials and drilling methods which can affect their performance. We recommend the tie-back anchor diameters and bond lengths be established by a design-build drilling contractor based on the required resistances specified by the structural designer on the contract plans. Therefore, we have limited our work to preliminary analysis to help establish reasonable parameters for the structural design of the wall and estimated quantities. Our work includes selecting the tie-back anchor inclination, unbonded length, minimum bond length, corrosion protection requirements, and preliminary estimates of the nominal axial resistances and tie-back anchor stiffness.

Tie-back anchor tendons are typically manufactured in the factory and delivered pre-made to specified lengths with the specified corrosion protection. The tendons can be shortened in the field, but lengthening is problematic. Therefore, we have conservatively estimated the unbonded length.

Tie-Back Anchor Inclination. We recommend a tie-back anchor inclination of 15 degrees below the horizontal. This angle is intended to assist in constructability of the tie-back anchors and keep the tie-back anchors within the County's Right-of-Way.

Unbonded Length. We recommend the tie-back anchors include a minimum unbonded zone of 15 feet to extend the anchors bonded zone beyond the wall backfill and the outer zone of the slope that is susceptible to surficial slope instability.

Tie-Back Anchor Resistance and Minimum Bond Length. The contractor will be responsible for establishing the required tie-back anchor bond length and diameter to provide the required resistance and maintain the anchor within the existing right-of-way. Therefore, we have limited our work to providing a minimum bond length for estimating purposes. Tie-back anchor loads will vary with location. We have estimated the required factored tie-back anchor resistances may range from 30 to 65 kips.

Minimum bond lengths were established assuming a grout-to-soil bond resistance estimated from the available literature (FHWA, 1999). The literature indicates an average nominal grout-to-soil bond strength in the range of ±11 to 20 psi in soils similar to those encountered in our exploration. A nominal drilled tie-back anchor diameter of 5 inches was assumed. The actual drill diameter will be selected by the contractor designing the anchors. Our preliminary calculations suggest a minimum bond length of 15 feet.

Once designed, the required tie-back anchor axial resistances will be confirmed during construction with proof tests and performance tests. The total lengths will depend on the required axial resistance, construction materials, and installation procedures selected for the tie-back anchors.

Corrosion Protection. The granular embankment fill is expected to have low corrosion potential. However, the colluvium may be moderately corrosive. Therefore, PTI Class 1 corrosion protection is recommended for the tie-back anchors.

CONSTRUCTION RECOMMENDATIONS

Specifications

All specifications contained herein refer to WSDOT's Standard Specifications for Road, Bridge and Municipal Construction (2023). It is also assumed these specifications will be referred to for general or specific items not addressed in this report.

Soldier Piles and Permanent Ground Anchors

Drilling and installation of the soldier piles and permanent ground anchors should be monitored throughout construction by a design team representative to provide QA/QC during drilling and concrete placement. The specifications for boring and concreting the soldier piles should follow the special provisions.

The soldier pile prebores will be advanced through colluvium including loose silty gravel, which may be susceptible to caving. Therefore, contractors should anticipate using temporary casing or slurry. In addition, the boring encountered scattered cobble to boulder-size rock fragments.

Shaft backfill consisting of lean concrete should be placed in accordance with Section 6-16.3(5) in a manner to fill the annulus between the pile and the sidewalls of the excavation. The shaft backfill should extend to the ground surface. Contractors should capture water and cuttings displaced during concrete placement and dispose of it away from the site.

Installation of the soldier piles will require drilling through road embankment fill, possibly slide debris and colluvium. A member of the design team should be present during construction to confirm the required prebore depths.

Similar to the soldier piles, the permanent ground anchors will be drilled through variable embankment fill containing sand and sandy gravel. Temporary casing may be required to reduce caving in the fill. A representative of the design team should be present during construction to confirm the required drilling lengths.

Following installation of the permanent ground anchors, each anchor should be tested following the procedures in WSDOT 2023 Section 6-17.3(8) to confirm the required axial resistance. We recommend Performance Testing at least two tie-back anchors. Performance Testing involves incrementally loading and unloading the anchor in cycles up to 100% of the factored design load. All other production tie-back anchors should be Proof Tested. Proof Testing involves incrementally loading the tie-back anchor up to 100% of the factored design load in a single cycle. Following testing, the anchor lock off load should be no more than 50% of the factored design load to allow for additional wall deflection and the development of active earth pressures during final backfilling.

Temporary Access and Work Platform

The soldier piles are expected to be installed from a constructed access route below the existing road surface. We anticipate some on-going creep of the slide mass. Therefore, we recommend that the work be completed during the relatively dry weather months.

No fill placement over the existing slopes should be allowed. The work should consist of the excavation of a full bench cut into the slope for construction access. Similarly, work associated with pile and lagging installation should be cut into the existing slope.

Excavations/Shoring/Dewatering

Excavation will be required for construction of the retaining wall. The excavations will extend through angular rock embankment fill, disturbed slide debris, and colluvium. Excavations for the walls will completely remove the soil from beneath the lagging and directly behind the soldier piles. All loose soil, existing concrete blocks, and unstable embankment fill uphill of the wall will also have to be removed prior to backfilling. The amount of excavation behind the soldier piles will vary with location.

It is the contractor's responsibility to maintain stable cut slopes and provide the necessary shoring as required. The existing embankment fill is expected to vary with location. An OSHA Soil Type C will be appropriate for the slide debris or upper colluvium. OSHA recommends temporary cut slopes of 1.5:1 (H:V) for Type C soils.

Preboring for the piles will extend to near the creek level. Therefore, groundwater may be encountered in the excavations. The contractor should be prepared to provide dewatering for those excavations prior to backfilling.

Wall Backfill/Embankment Construction

Reconstruction of the roadway will require backfilling the construction bench after the wall is constructed. Embankment construction is expected to include Rock Embankment and should be completed in accordance with Section 2-03.3(14). Gravel Backfill for Walls (2½-inch minus) (Section 9-03.12(2)) should be used to backfill the wall excavation and re-build the road embankment. Crushed Surfacing Base Course (Section 9-03.9(3)) will be used for reconstruction of the pavement section.

The wall backfill should be compacted to 90% relative compaction using the maximum dry density determined by ASTM D698 (Standard Proctor). However, the specified backfill will be too coarse for standard laboratory and field density testing. Therefore, confirmation of adequate compaction will have to be evaluated based on visual observation of the of placement and compaction methods. Compaction of the wall backfill should be completed in loose lifts not exceeding 6 inches within 5 feet of the wall. The use of light, hand-operated or walk-behind equipment is recommended for the wall backfill. In deeper excavations, hydraulic compactors mounted on excavators or backhoes may be used in the wall backfill zone, provided the compaction is completed carefully. Heavy rollers should not be used in the wall zone since they may create excessive lateral earth pressure and damage the wall.

Wall Drainage

A Prefabricated Drainage Mat should be installed on the back of the wall panels between soldier piles as outlined in Section 6-16.3(7). Four-foot-wide drainage sheets placed down the center of the panels (midway between the soldier piles) should be adequate. Where possible, provide drainage holes through the lagging panels and install drainpipes perpendicular to the wall to extend the outlet of the wall drains beyond the slope in front of the wall. Alternatively, a drainpipe may be installed in front of the wall (parallel to the wall) to collect the water and direct it to a location where it can be disposed of. The installation of drainpipes will only be practical in portions of the wall where a trench can be dug through the slide debris in front of the wall to daylight on the slope, but outside of the slide area. Therefore, in most instances, the elevation of any drains will be tied to the grade of the soil in front of the wall.

In the deepest portion of the wall, it will not be possible to provide drainage for the entire wall height since the bottom of the lagging will extend below the finish grade in front of the wall. At this location, we anticipate any drainage from the upper portions of the backfill will migrate down to the deeper portion of the wall. Despite the lack of drainage in this section of the wall, we do not anticipate the limited build-up of hydrostatic pressure to impact the wall performance because any trapped water should accumulate on both sides of the lagging.

DESIGN REVIEW/CONSTRUCTION OBSERVATION/TESTING

We should be provided the opportunity to review all drawings and specifications that pertain to the proposed repair work. Installation of the soldier piles, excavation of temporary or permanent cut slopes, and construction and testing of the tie-back anchors will require on-site geotechnical observation and documentation. That observation should be provided by a Foundation Engineering representative. Frequent field density tests should be run on all engineered fill (where appropriate), subgrade and base rock.

VARIATION OF SUBSURFACE CONDITIONS, USE OF THIS REPORT AND WARRANTY

The analysis, conclusions and recommendations contained herein assume the subsurface profiles encountered in the boring is representative of the overall site conditions. The above recommendations assume we will have the opportunity to review final drawings and be present during construction to perform the services outlined above. No changes in 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 Cowlitz County for the Hazel Dell Road Slide Repair 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 ground water 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.

MJM/lh
Attachments

REFERENCES

AASHTO, 2020, LRFD Bridge Design Specifications, American Association of State Highway and Transportation Officials (AASHTO), 9th Edition.

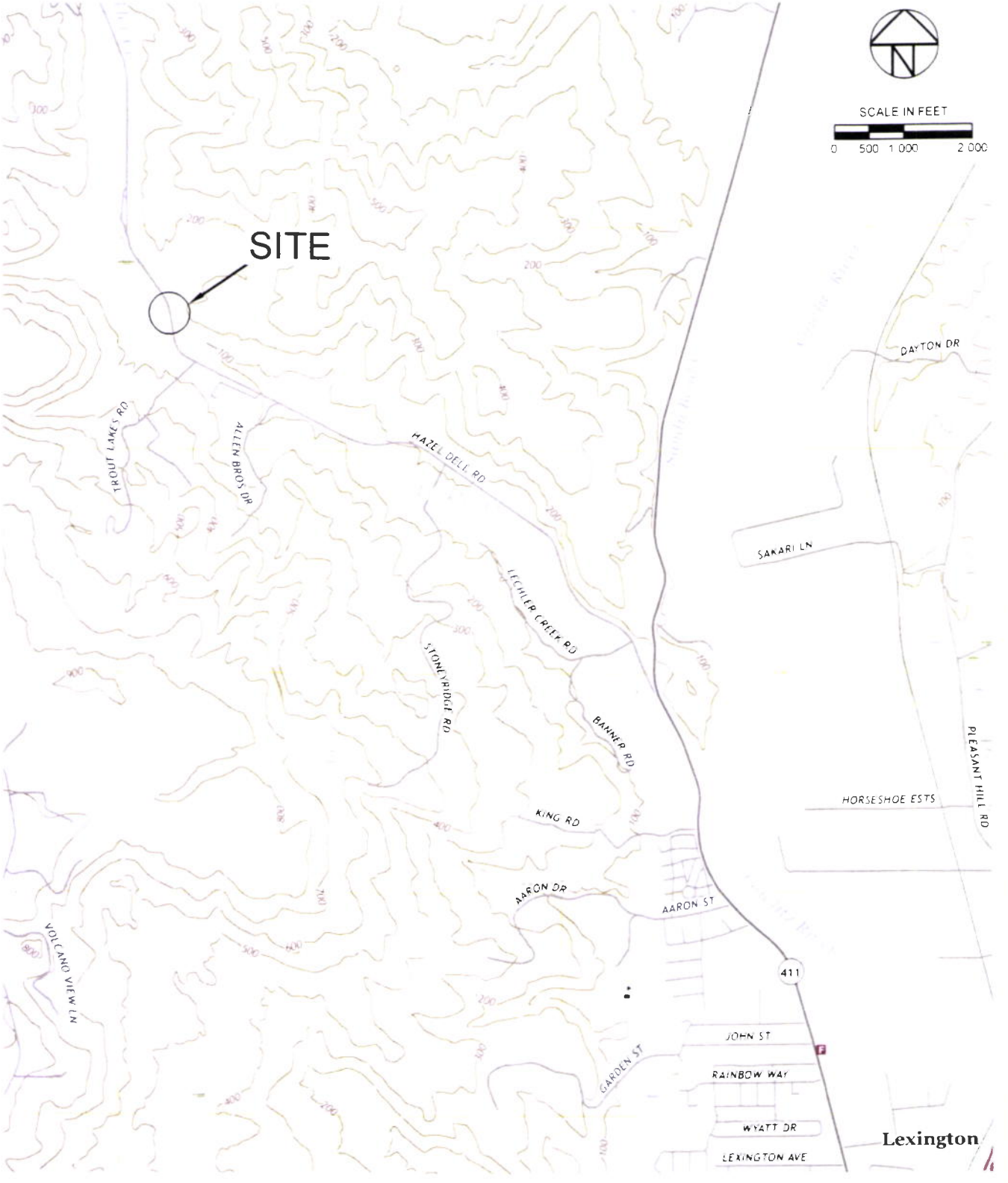
FHWA, 1999, Ground Anchors and Anchored Systems: Federal Highway Administration (FHWA), FHWA GEC 04 - Volume 1, Publication No. FHWA-IF-99-015.

WSDOT, 2023, Washington Standard Specifications for Road, Bridge and Municipal Construction: Washington Department of Transportation (WSDOT), p. 628 – 631.

Appendix A

Figures

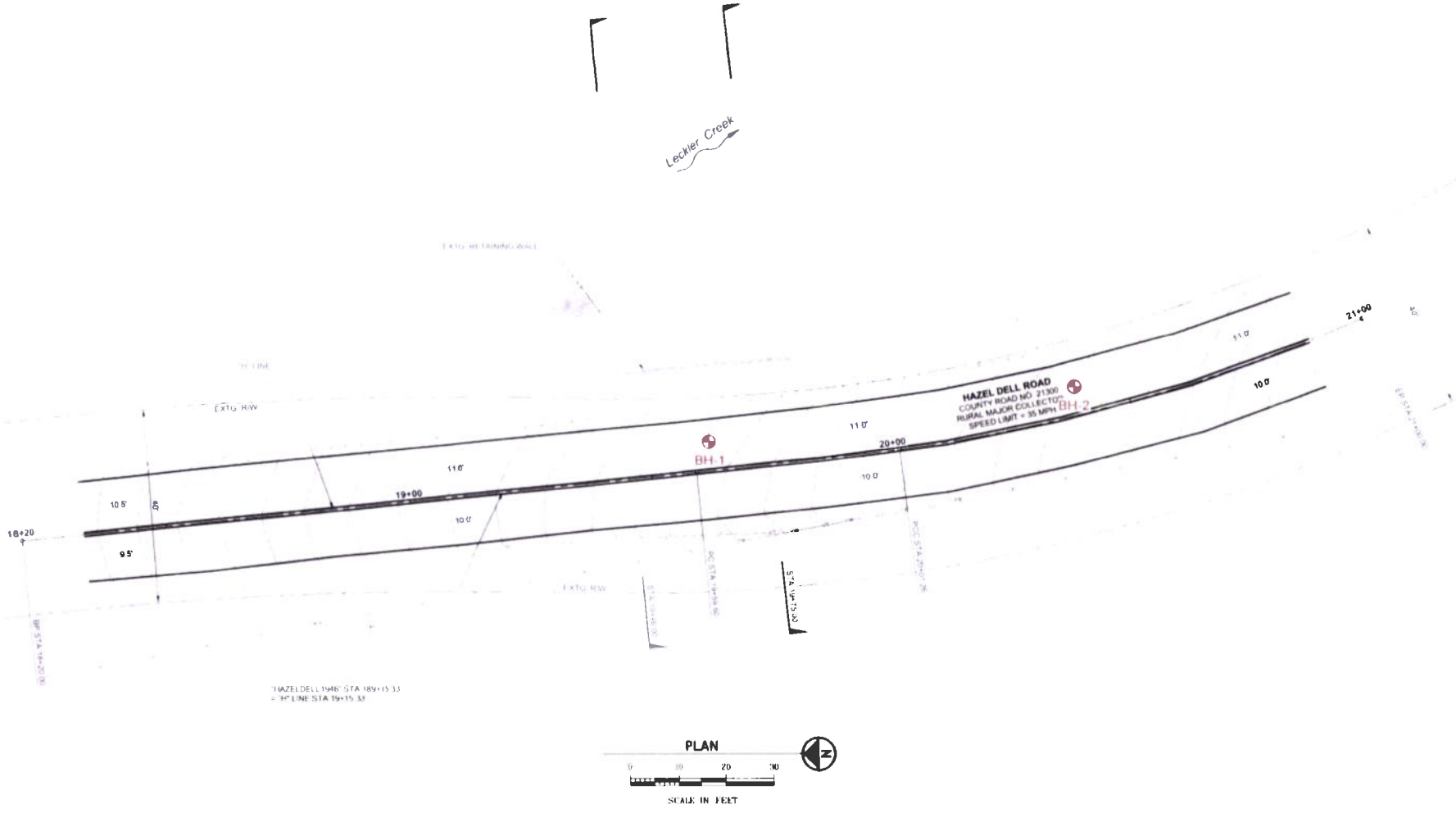
Foundation Engineering, Inc.
Professional Geotechnical Services



Note: Base map obtained from the USGS website.

Foundation Engineering, Inc.			VICINITY MAP	FIGURE NO. 1A
PROJECT NO. 2231011	DATE: Jan. 22, 2023	DRAWN BY: EJG	HAZEL DELL ROAD SLIDE REPAIR - MP 1.76 TO 1.80 COWLITZ COUNTY, WASHINGTON	

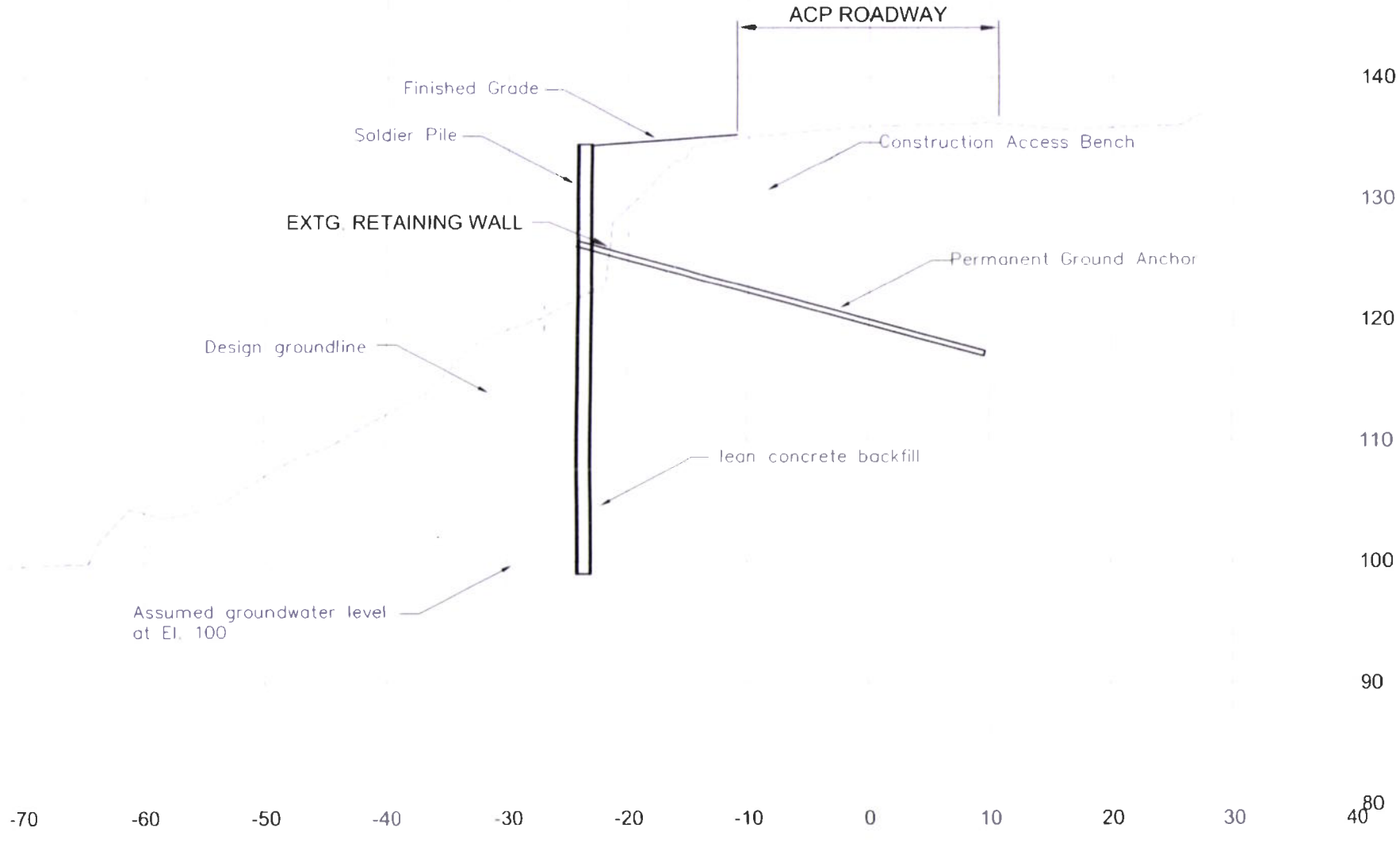
FILE:Fig 1A Vicinity (1-22-23).dwg



NOTES:

1. BORING LOCATIONS WERE ESTABLISHED USING A CLOTH TAPE AND ARE APPROXIMATE.
2. BASE MAP PROVIDED BY THE COWLITZ COUNTY DEPARTMENT OF PUBLIC WORKS.
3. SEE REPORT FOR A DISCUSSION OF SUBSURFACE CONDITIONS.

Foundation Engineering, Inc.			SITE LAYOUT AND BORING LOCATIONS	FIGURE NO
PROJECT NO	DATE	DRAWN BY	HAZEL DELL ROAD SLIDE REPAIR - MP 1.76 TO 1.80 COWLITZ COUNTY, OREGON	2A
2231011	Mar 1, 2023	EJG		



Notes:
1. Wall configuration varies along alignment.
2. See report for a discussion of soil conditions and wall design parameters.

Not to Scale

Foundation Engineering, Inc.

PROJECT NO.	DATE:	DRAWN BY:
2231011	APRIL 2023	MJM

TYPICAL SECTION

HAZEL DELL ROAD SLIDE REPAIR
MP 1.76 TO 1.8
COWLITZ COUNTY, WASHINGTON

FIGURE NO.
3A

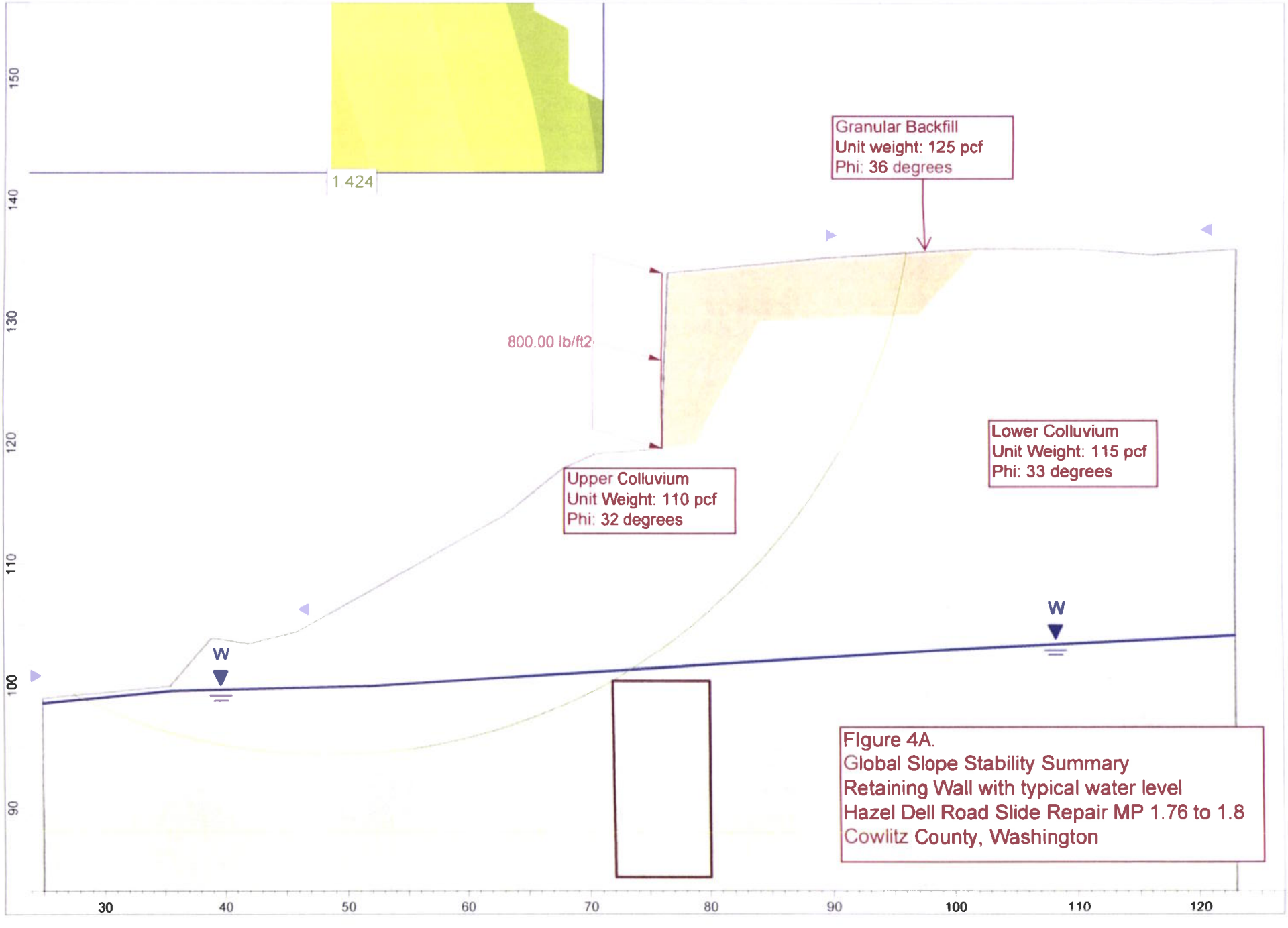


FIgure 4A.
Global Slope Stability Summary
Retaining Wall with typical water level
Hazel Dell Road Slide Repair MP 1.76 to 1.8
Cowlitz County, Washington

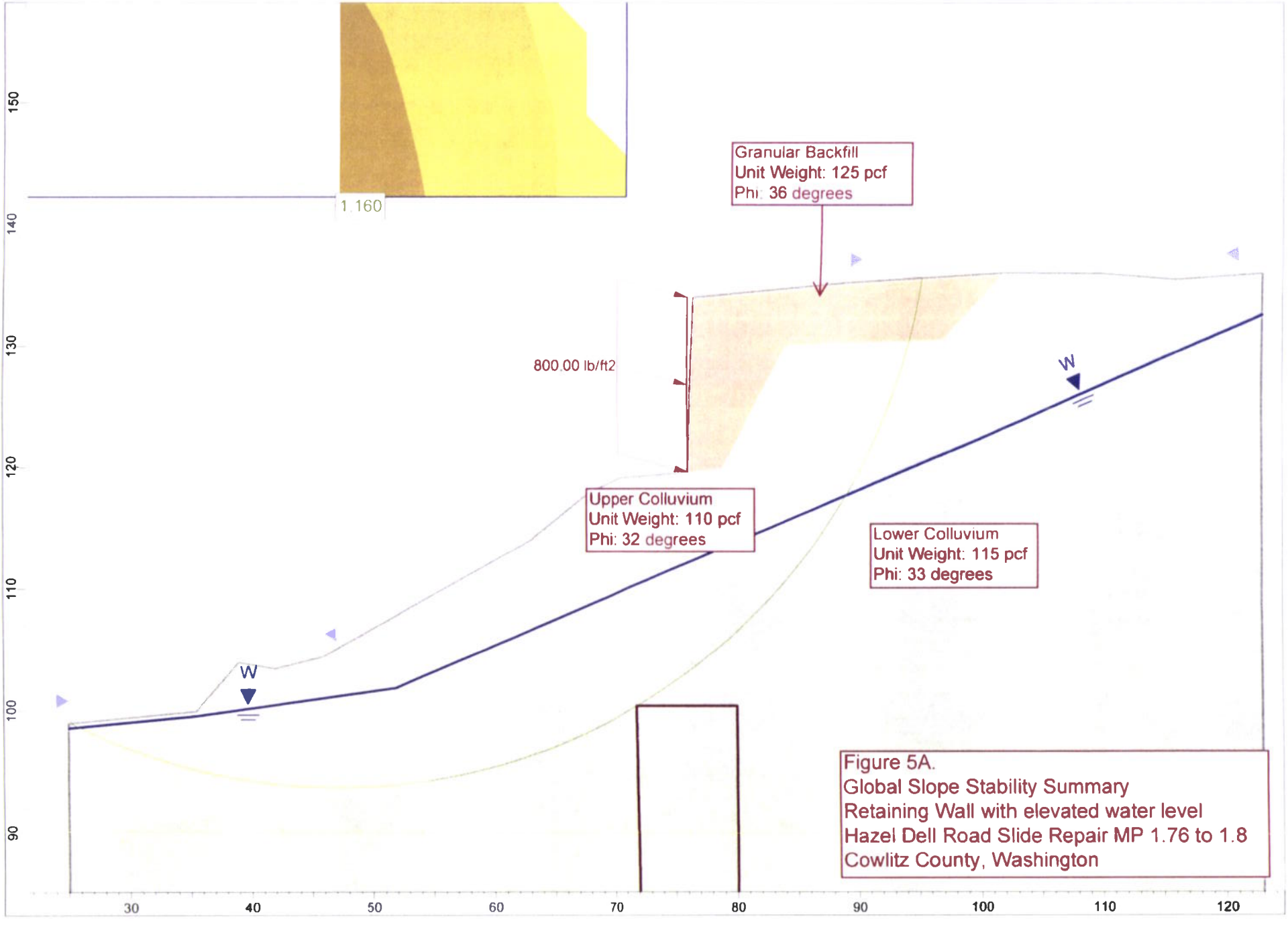
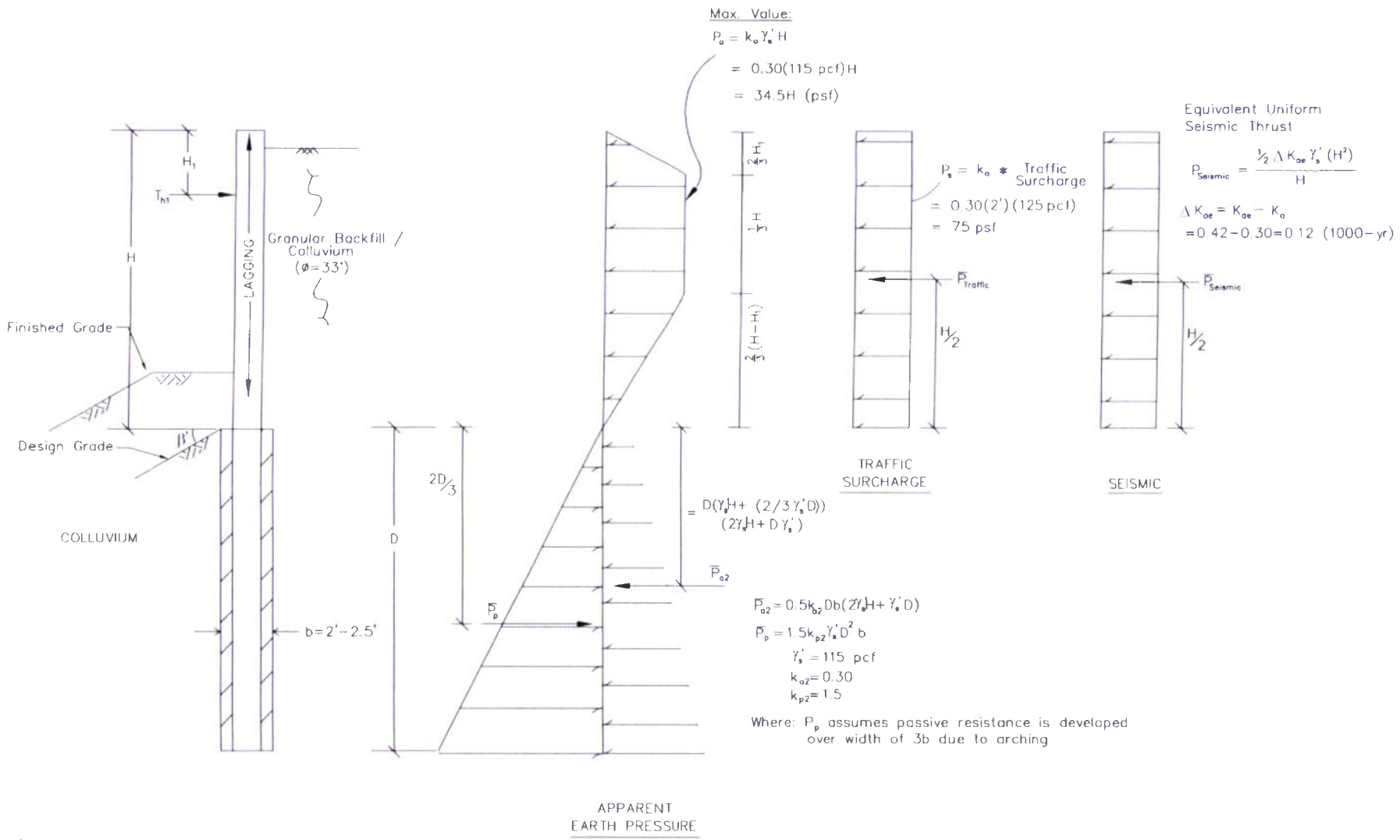


Figure 5A.
Global Slope Stability Summary
Retaining Wall with elevated water level
Hazel Dell Road Slide Repair MP 1.76 to 1.8
Cowlitz County, Washington



Notes:

1. Assumes lagging is drained and wall is embedded in colluvium.
2. See report for a discussion of soil conditions and wall design parameters.
3. Apparent earth pressure distribution based on ASSHTO Figures 3.11.5.6-1 and 3.11.5.7.1-1(a)

Foundation Engineering, Inc.			APPARENT EARTH PRESSURES	FIGURE NO.
PROJECT NO.	DATE:	DRAWN BY:	HAZEL DELL ROAD SLIDE REPAIR MP 1.76 to 1.8 COWLITZ COUNTY, WASHINGTON	6A
2231011	APRIL 2023	MJM		

Foundation Engineering, Inc.
Hazel Dell Road Slide Repair MP 1.76 to 1.8
Project No.: 2231011

Table 1A. PY Wall Soil Parameters

Depth (ft)	Material Description	LPILE p-y Criteria	γ' (pcf)	ϕ' (°)	c (psf)	K (pci)	ε_{50}
0.0	Crushed Rock (backfill)	SAND (Reese)	125	36	-	120	-
4.0			125	36	-	120	-
4.0	Loose silty GRAVEL	SAND (Reese)	110	32	-	90	-
12.5			110	32	-	90	-
12.5	Medium dense silty GRAVEL	SAND (Reese)	115	33	-	100	-
30.0			115	33	-	100	-
30.0	Medium dense silty GRAVEL	SAND (Reese)	53	33	-	60	-
35.0			53	33	-	60	-

Notes:

1. Subsurface profile interpreted based on conditions encountered in BH-1.
2. Top elevation of the soil profile corresponds to the road surface.
3. Assumes ground water table (gwt) is 30 feet below the top of the pile.

Appendix B

Boring Logs

Foundation Engineering, Inc.
Professional Geotechnical Services

DISTINCTION BETWEEN FIELD LOGS AND FINAL LOGS

A field log is prepared for each exploration 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 groundwater. 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.

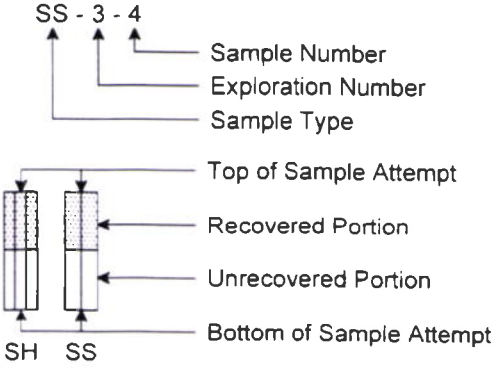
VARIATION IN SOILS BETWEEN EXPLORATIONS

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 Foundation Engineering 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 AND TEST SYMBOLS



C - Pavement Core Sample
CS - Rock Core Sample
OS - Oversize Sample (3-inch O.D. split-spoon)
S - Grab Sample
SH - Thin-walled Undisturbed Sample
SS - SPT Sample (2-inch O.D. 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 (%)

FIELD SHEAR STRENGTH TEST

Shear strength measurements on test pit side walls, blocks of soil or undisturbed samples are typically made with Torvane or Field Vane shear devices. Values reported as undrained shear strength (S_u) in tsf.

GROUNDWATER

▼ Groundwater Location

(1/31/21) Date of Measurement

TYPICAL SOIL/ROCK SYMBOLS

Concrete, Organics, Clay, Silt, Sand, Gravel, Basalt, Sandstone, Siltstone

UNIFIED SOIL CLASSIFICATION SYMBOLS

G - Gravel
S - Sand
M - Silt
C - Clay
Pt - Peat
W - Well Graded
P - Poorly Graded
L - Low Plasticity
H - High Plasticity
O - Organic

Foundation Engineering, Inc.

EXPLORATION LOG KEY

IMPORTANT INFORMATION AND SYMBOLS

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		

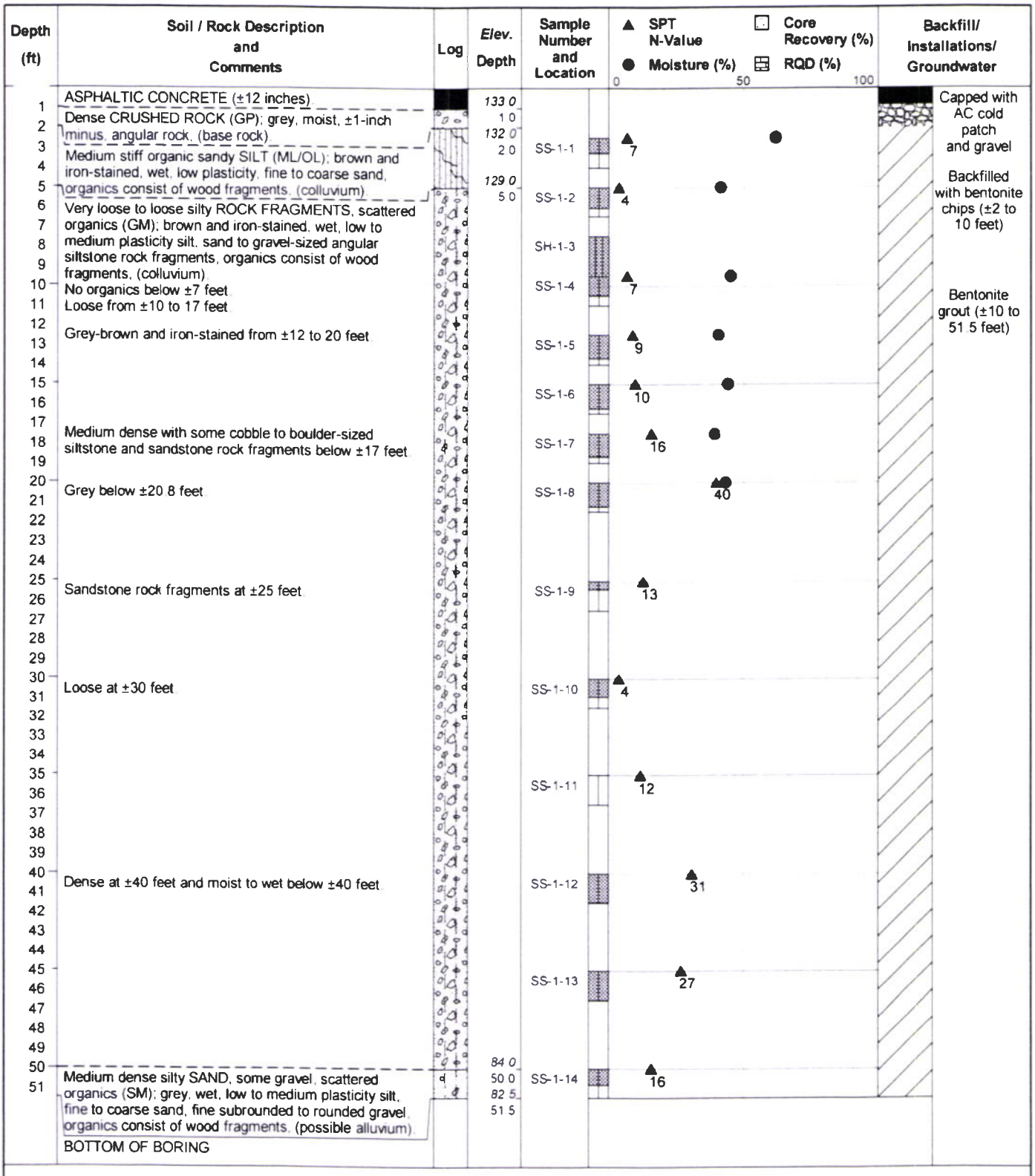
* SPT N-value in blows per foot (bpf)
** Undrained shear strength

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 along surfaces into smaller lumps or blocks. Slickensides may be visible.
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.



Project No : 2231011

Surface Elevation : 134 0 feet (Approx)

Date of Boring: January 23, 2023

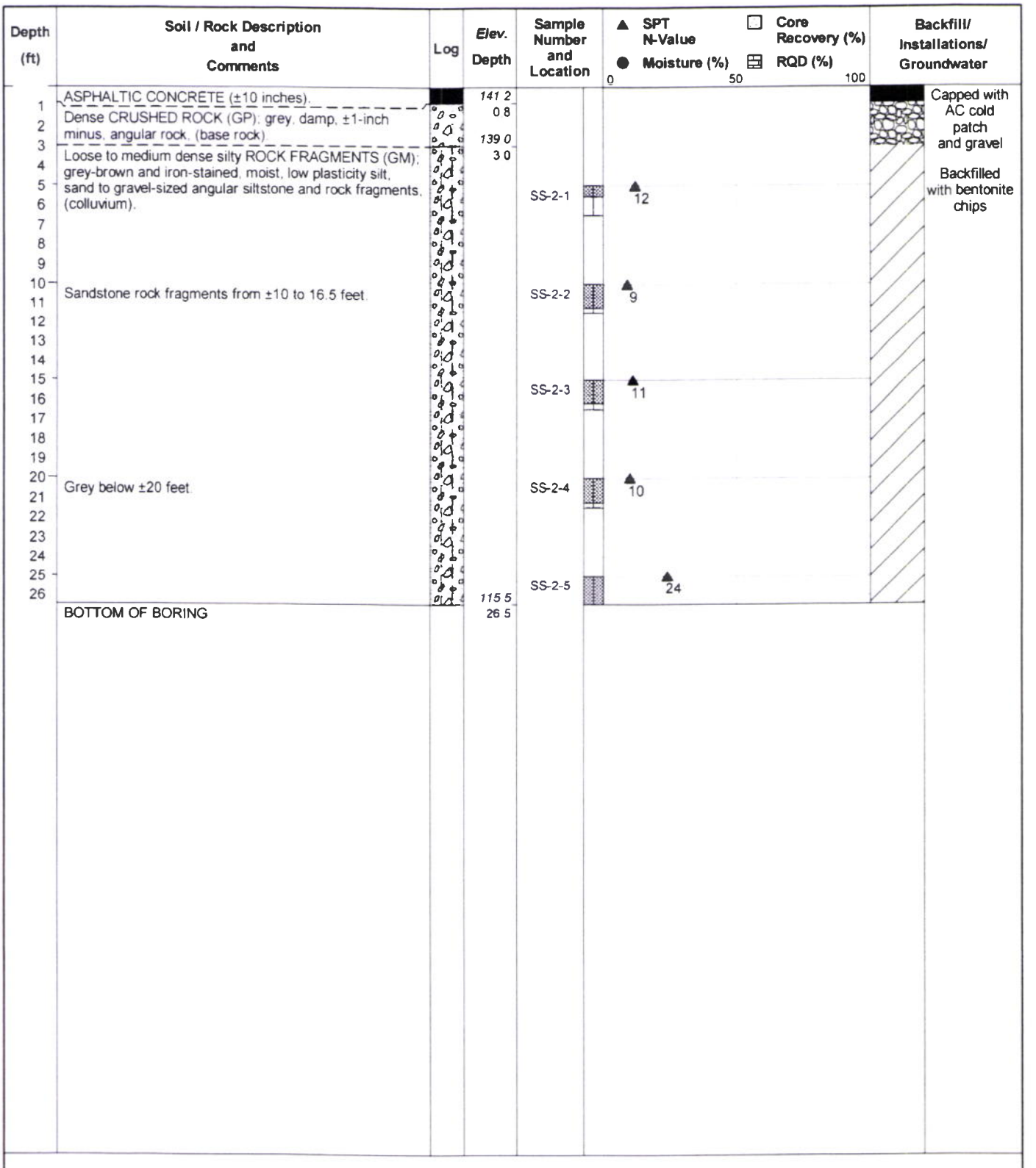
BORING LOG: BH-1

Hazel Dell Road Slide Repair - MP 1.76 to 1.80

Cowlitz County, Washington

Foundation Engineering, Inc.

BH-1



Project No : 2231011

Surface Elevation: 142.0 feet (Approx.)

Date of Boring: January 23, 2023

BORING LOG: BH-2

Hazel Dell Road Slide Repair - MP 1.76 to 1.80

Cowlitz County, Washington

Foundation Engineering, Inc.

BH-2

Appendix C

Laboratory Testing

Foundation Engineering, Inc.
Professional Geotechnical Services

Foundation Engineering, Inc.
Hazel Dell Road Slide Repair - MP 1.76 to 1.80
Project No.: 2231011

Table 1C. Moisture Content, Percent Fines, and Atterberg Limits Test Results

Sample Number	Sample Depth (feet)	Moisture Content (percent)	Percent Fines	Atterberg Limits			USCS Classification
				LL	PL	PI	
SS-1-1	2.5 - 4.0	63.1					
SS-1-2	5.0 - 6.5	41.7	41.7				
SS-1-4	9.5 - 11.0	45.4					
SS-1-5	12.5 - 14.0	40.8		76	41	35	MH
SS-1-6	15.0 - 16.5	44.4	44.4				
SS-1-7	17.5 - 19.0	39.4					
SS-1-8	20.0 - 21.5	43.5	43.5				

APPENDIX D

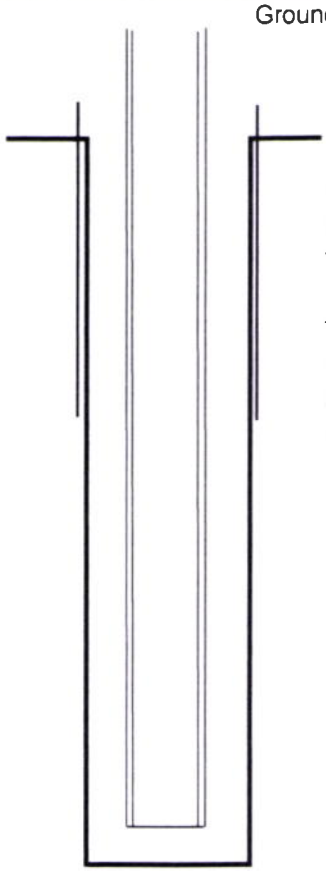
SOLDIER PILE INSTALLATION FIELD RECORD

SOLDIER PILE INSTALLATION FIELD RECORD

Project Name		Wall No.		Page	
Project No.		Soldier Pile No.		Date	
Drilling Contractor		Inspector			

Date and Time			
Excavation Started		Finished	
Bottom Inspected			
Concrete Pour Started		Finished	
CLSM Pour Started		Finished	

Reference El.		
Station		
Ground Water El.		
Seepage El./Rate (gpm)		
Pile Type		
Pile Heat No.		
	DESIGN	AS-BUILT
Shaft Dia. (ft.)		
Bottom El.		
Pile Length "H" (ft.)		
Pile Emb. "D". (ft.)		
Bottom Clearance (in.)		
Top of Concrete El.		
Concrete Vol. (yd^3)		
Pile Tip El.		
Pile Top El.		
Concrete Placement Method		
Remarks:		



Ground Surface El. _____

Casing (Perm/Temp)

Diameter. (in.) _____
Top El. _____
Length (ft.) _____
Thickness (in.) _____
Removal
Started _____
Finished _____

DATE	TIME	DEPTH	TOOL	SOIL OR ROCK DESCRIPTION

Foundation Engineering, Inc.

TIE-BACK INSTALLATION FIELD RECORD

Project: _____ Date: _____

Project No.: _____ Structure: _____ Contractor: _____

Soldier Pile: _____ Station: _____ Inspector: _____

DRILLING

Hole Dia. (in.): _____ Rig Type/Method: _____

Inclination: _____ Tolerance Deviation: _____

Start Time: _____ Finish Time: _____

Design Length (ft.): _____ Length Drilled (ft.): _____

Reference El.: _____ Casing Length (ft.): _____

Casing OD (in.): _____ Depth of Casing Tip (ft.): _____

Ground Water: _____ Seepage Rate (gpm): _____

Remarks: _____

ANCHOR

No. Of Strands: _____ Total Length (ft.): _____

Total Steel Area: _____ Unbound Length (ft.): _____

Design Load (kips): _____ Bound Length (ft.): _____

Max. Test Load (kips): _____ Lock-off Load (kips): _____

Remarks: _____

GROUTING

Vol. of Holding Bin or Cu. Ft./Stroke or No. of Bags: _____

Grouting Around the Anchor Start Date/Time: _____ Finish Time: _____

Length Grouted (ft.): Theoretical Vol./Pumped Vol. (ft^3): _____

Grouting Anchor Start Date/Time: _____ Finish: _____

Grouting from cut to the Wall Start Date/Time: _____ Finish: _____

Post Grouting Start Date/Time: _____ Finish: _____

Grout Vol. (ft^3): _____ Max. Grout Pressure (psi): _____

Remarks: _____

TEST

Type of Test: _____

Test Date/Time: _____

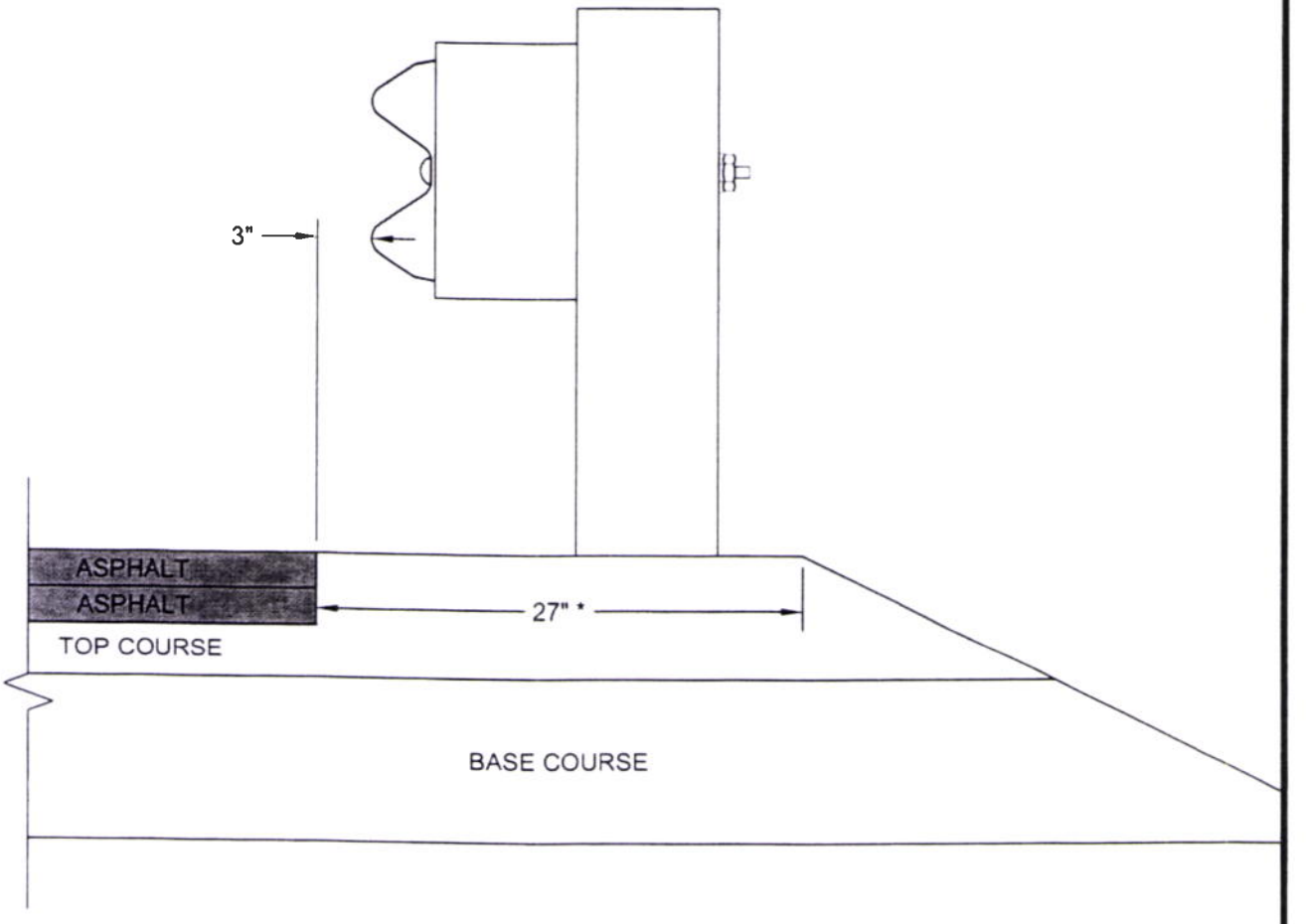
Tie-Back Accepted: _____

Remarks: _____

APPENDIX E

COWLITZ COUNTY AND WSDOT STANDARD PLANS

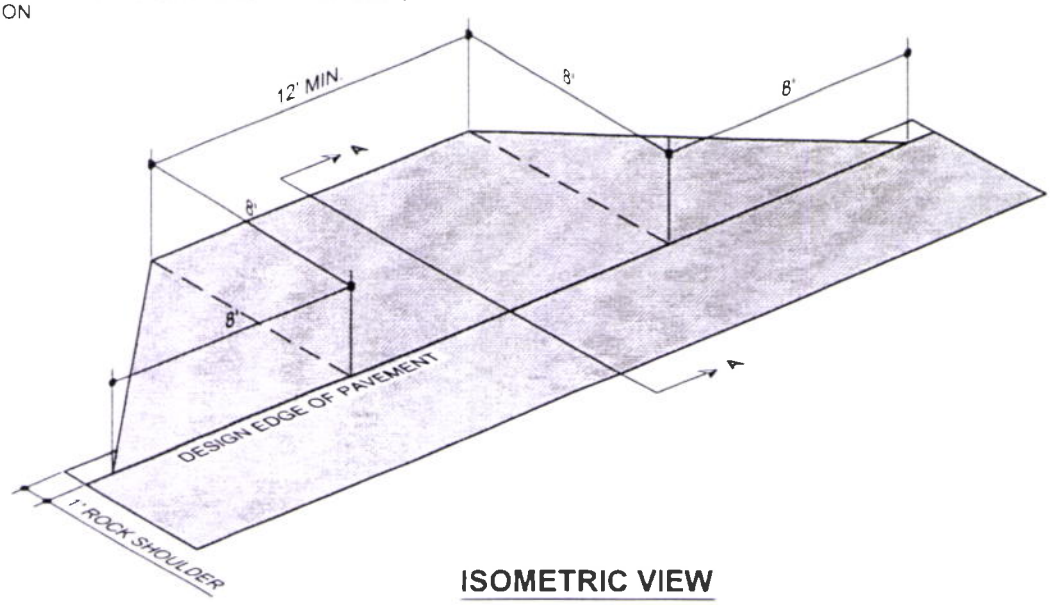
ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION



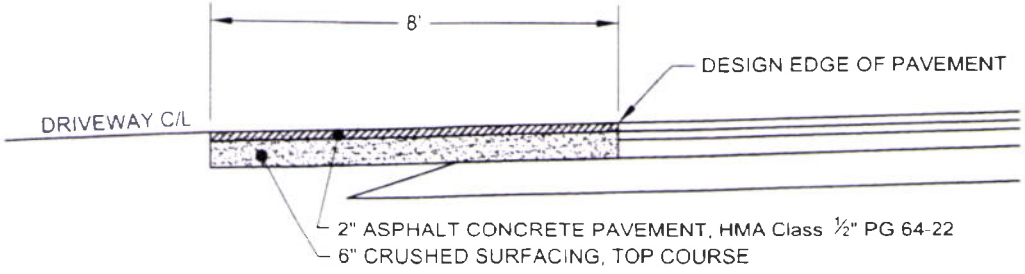
* Refer to WSDOT Design Manual Chapter 700.

RGL DESIGNED BY JMC 3/6/07 DRAWN BY KAC APPROVED BY 3-21-07 DATE	**GUARDRAIL LOCATION** NTS	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 207 4th AV. NORTH KELSO, WASHINGTON 98626 DRAWING:CC-1202	SHEET 1 OF 1

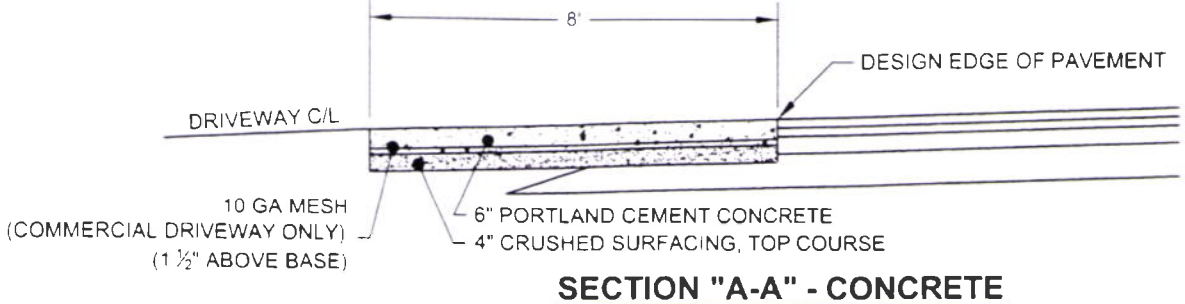
ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION



ISOMETRIC VIEW



SECTION "A-A" - ASPHALT

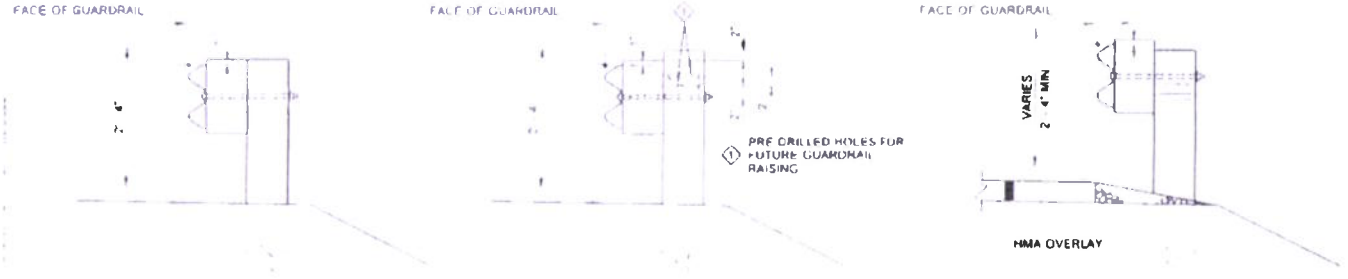


SECTION "A-A" - CONCRETE

NOTES:

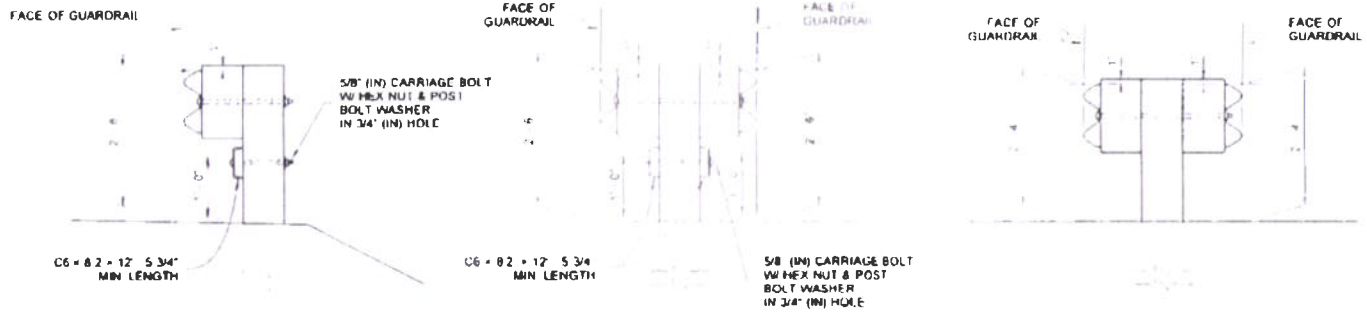
1. Concrete shall have a minimum compresive strength of 3000 p.s.i. after 28 days - 6 sack mix.

RGL DESIGNED BY JMC 3/6/07 DRAWN BY KAC APPROVED BY 3-21-07 DATE	**STANDARD APPROACH** ASPHALT OR CONCRETE APRON N T S	COWLITZ COUNTY WASHINGTON	DEPARTMENT OF PUBLIC WORKS 207 4th AV. NORTH KELSO, WASHINGTON 98626 **DRAWING:CC-1317**	SHEET 1 OF 1



TYPE 1 | INITIAL INSTALLATION | RAIL ELEMENT RAISED

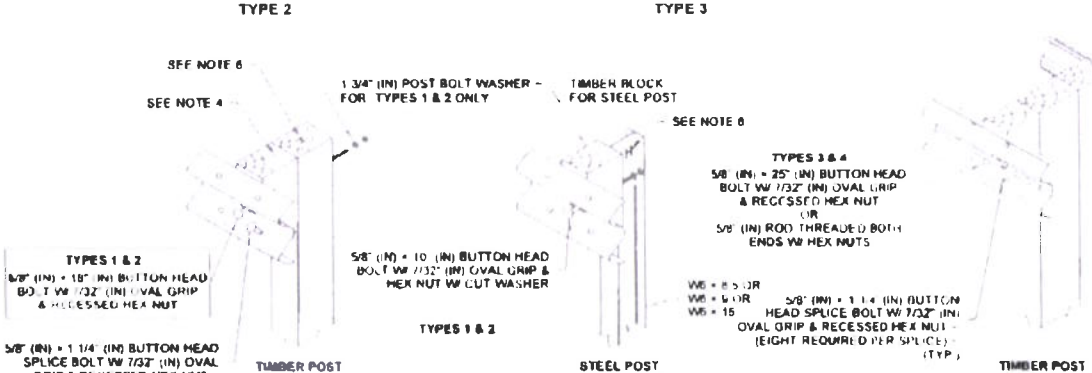
TYPE 1 ALTERNATIVE



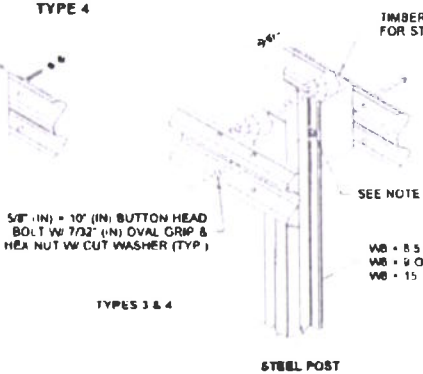
TYPE 2 | TYPE 3 | TYPE 4

NOTES

1. When required by the Contract, a Snow Load Post Washer shall be used on the backside of the post (in lieu of the 1 3/4" (in) Post Bolt Washer) and a Snow Load Rail Washer shall be placed on the face side of Beam Guardrail Types 1 and 2. Snow Load Rail Washers shall not be installed on terminals.
2. Rail Washers, also called "Snow Load Rail Washers", are not required on new installation, except as called for in Note 1. Unnecessary Rail washers need not be removed from existing installations, except those on posts 2 through 8 of a BCT installation shall be removed.
3. Beam Guardrail post spacing for Types 1 through 4 shall be 6' - 3" on centers.
4. Timber blocks shall be toe-nailed to the post with a 16d galvanized nail to prevent block rotation.
5. For post and block details, see **Standard Plan C-1b**.
6. When "Beam Guardrail Type - ___ Ft. Long Post" is specified in the Contract, the post length shall be stamped with numbers 1 1/2" (in) min. high and 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.
7. Existing posts shall not be raised. Replace posts as necessary to achieve required guardrail height.
8. Holes shall be located on approaching traffic side of web.



ASSEMBLY DETAIL
TYPE 1 AND 2



ASSEMBLY DETAIL
TYPE 3 AND 4

JEFFERY L. PETTERSON
STATE OF WASHINGTON
24937
REGISTERED
PROFESSIONAL ENGINEER

BEAM GUARDRAIL TYPES 1 - 4 (W-BEAM)

STANDARD PLAN C-1

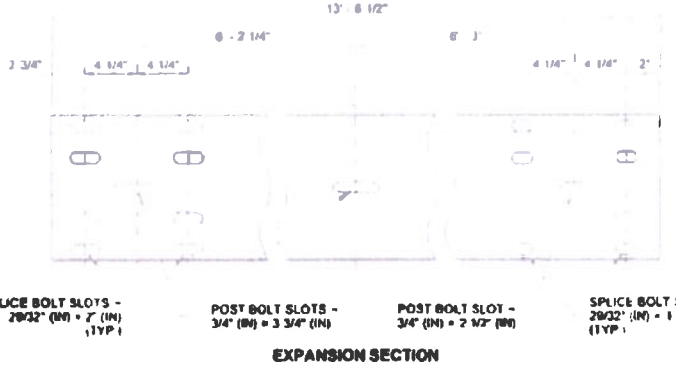
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

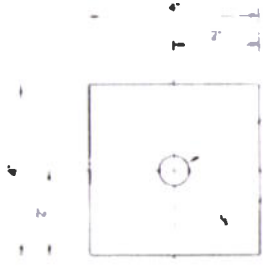
STATE DESIGN ENGINEER

Washington State Department of Transportation

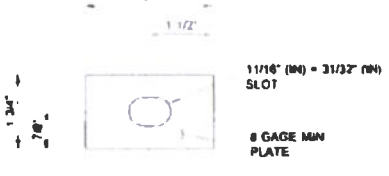
TYPICAL RAIL ELEMENT



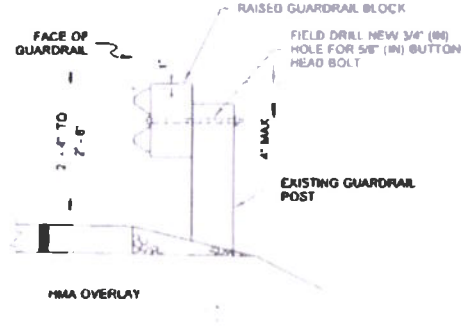
EXPANSION SECTION



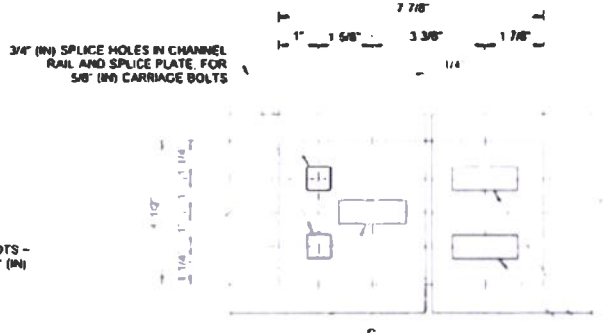
SNOW LOAD POST WASHER
SEE NOTE 1



SNOW LOAD RAIL WASHER
SEE NOTES 1 & 2



BEAM GUARDRAIL RAISING FOR HMA OVERLAYS



CHANNEL RAIL SPLICE

JEFFERY K. PETTERSON
STATE OF WASHINGTON
36937
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PROFESSIONAL ENGINEER

BEAM GUARDRAIL TYPES 1 - 4 (W-BEAM)

STANDARD PLAN C-1

SHEET 2 OF 2 SHEETS

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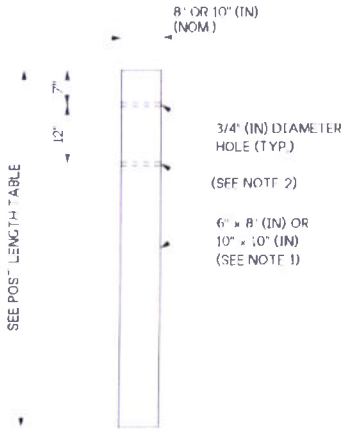
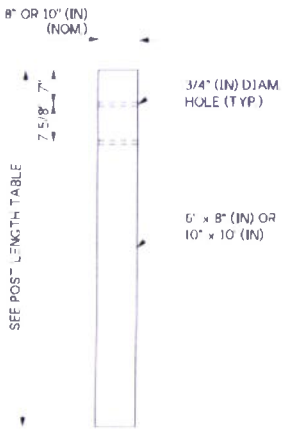
Carpenter, Jeff

STATE DESIGN ENGINEER

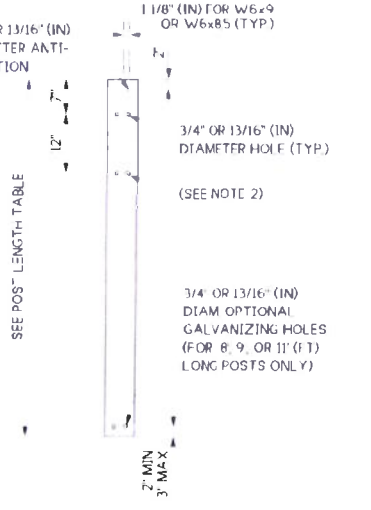
Washington State Department of Transportation



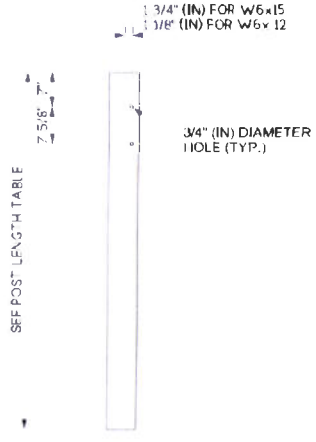
W-BEAM
(WOOD POST)



THRIE-BEAM
(WOOD POST)



W-BEAM
(STEEL POST ~ SEE NOTES 3 AND 4)



THRIE-BEAM
(STEEL POST ~ SEE NOTES 3 AND 4)

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.

POST LENGTH TABLE	
GUARDRAIL TYPE	LENGTH
TYPE 31	6' - 0"
	8' - 0" ★
	9' - 0" ★
	11' - 0" ★
THRIE BEAM	VARIES ★★

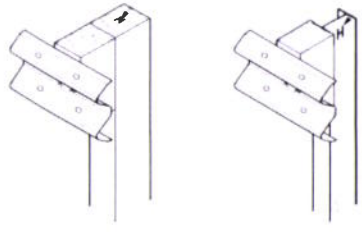
★ SEE CONTRACT FOR "BEAM GUARDRAIL TYPE - __ FT. LONG POST" LENGTHS (SEE NOTE 5)

★★ SEE STANDARD PLANS FOR THRIE BEAM POST LENGTHS

ROUTERED WOOD BLOCKS FOR STEEL POST TABLE		
POST	A	B
W6 x 8.5	6" NOMINAL	4 1/4"
W6 x 9	6" NOMINAL	4 1/4"
W6 x 12	6" NOMINAL	4 1/4"
W6 x 15	8" NOMINAL	6 1/4"

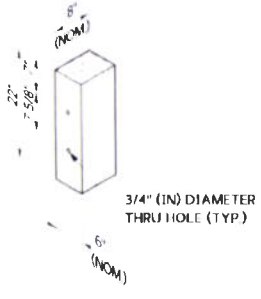
(SEE NOTE 5)

(SEE NOTE 5)

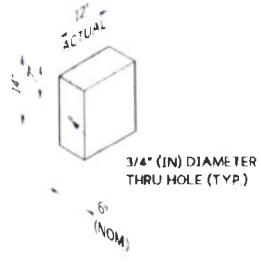


TIMBER POST STEEL POST

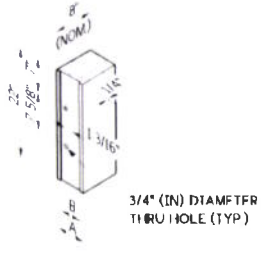
PARTIAL ASSEMBLY DETAIL



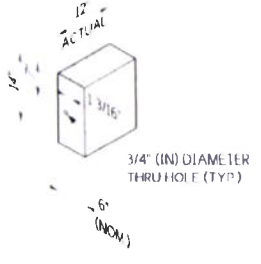
THRIE-BEAM WOOD BLOCK
FOR WOOD POST



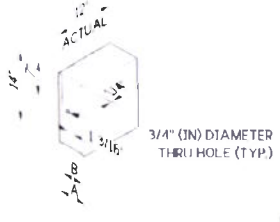
W-BEAM WOOD BLOCK
FOR WOOD POST



ROUTERED THRIE-BEAM
WOOD BLOCK FOR
STEEL POST



W-BEAM WOOD BLOCK
FOR STEEL POST



ROUTERED W-BEAM WOOD BLOCK
FOR STEEL POST

TIMOTHY J MOECKEL
STATE OF WASHINGTON
56294
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PROFESSIONAL ENGINEER

Oct 12, 2023

BEAM GUARDRAIL
POSTS AND BLOCKS

STANDARD PLAN C-1b

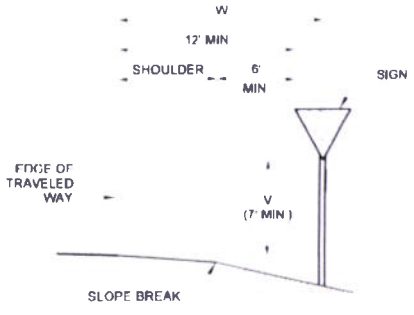
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

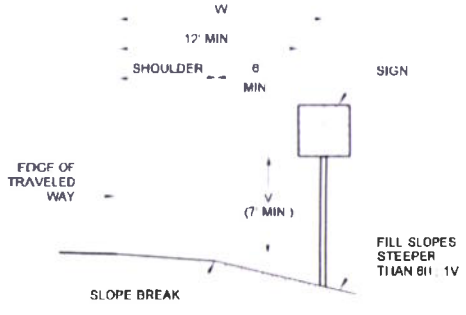
Oct 12, 2023

STATE DESIGN ENGINEER

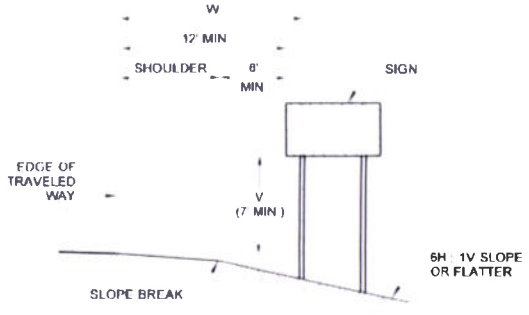
Washington State
Department of Transportation



SIGN INSTALLATION IN FILL SECTION

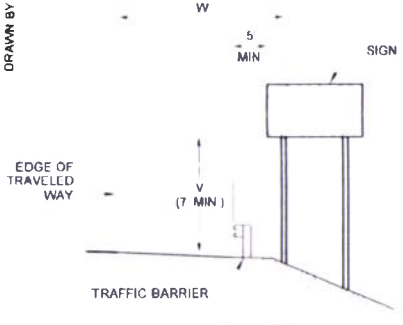


SIGN INSTALLATION ON STEEP FILL SLOPES

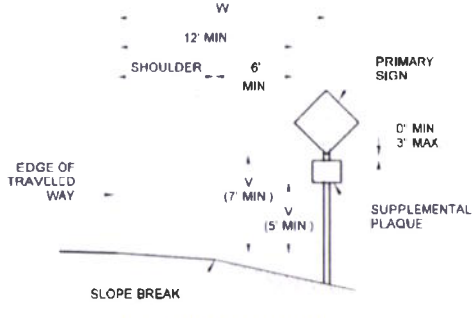


MULTIPLE SIGN POST INSTALLATION IN FILL SECTION

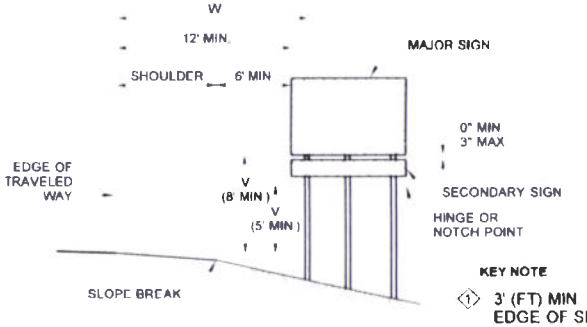
DRAWN BY FERN LIDDELL



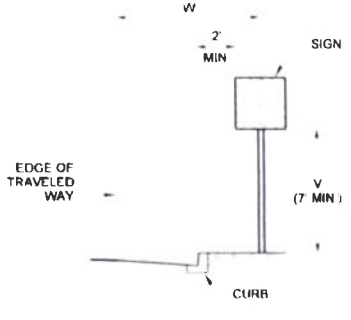
SIGN INSTALLATION BEHIND TRAFFIC BARRIER



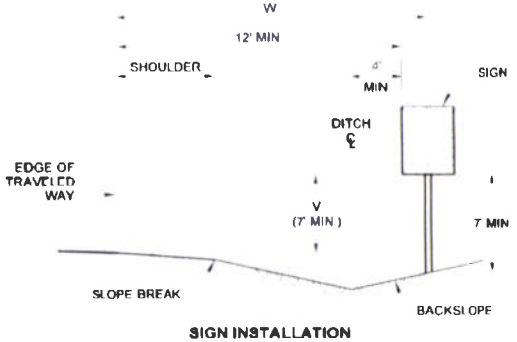
SIGN WITH SUPPLEMENTAL PLAQUE INSTALLATION IN FILL SECTION



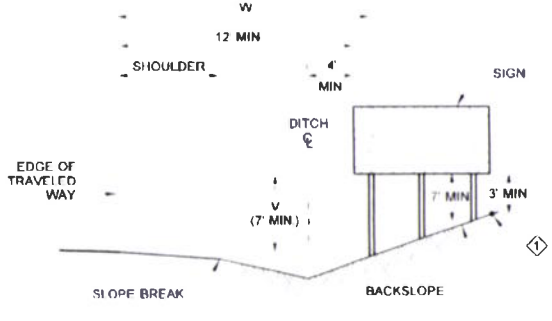
GUIDE OR DIRECTIONAL SIGN WITH SECONDARY SIGN INSTALLATION ON EXPRESSWAYS AND FREEWAYS



SIGN INSTALLATION IN CURB SECTION



SIGN INSTALLATION IN DITCH SECTION



MULTIPLE SIGN POST INSTALLATION IN DITCH SECTION

NOTES

1. Refer to the Sign Specification Sheet of the Contract for the 'V' and 'W' distances.
2. The minimum vertical distance from the bottom of the sign to the ground shall not be less than 7' (ft) for signs located within the Design Clear Zone.

KEY NOTE

1 3' (FT) MIN. FROM ANY POINT ALONG BOTTOM EDGE OF SIGN PANEL TO THE GROUND

BRIAN J. WALSH
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Aug 20, 2021

GROUND MOUNTED SIGN PLACEMENT

STANDARD PLAN G-20.10-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

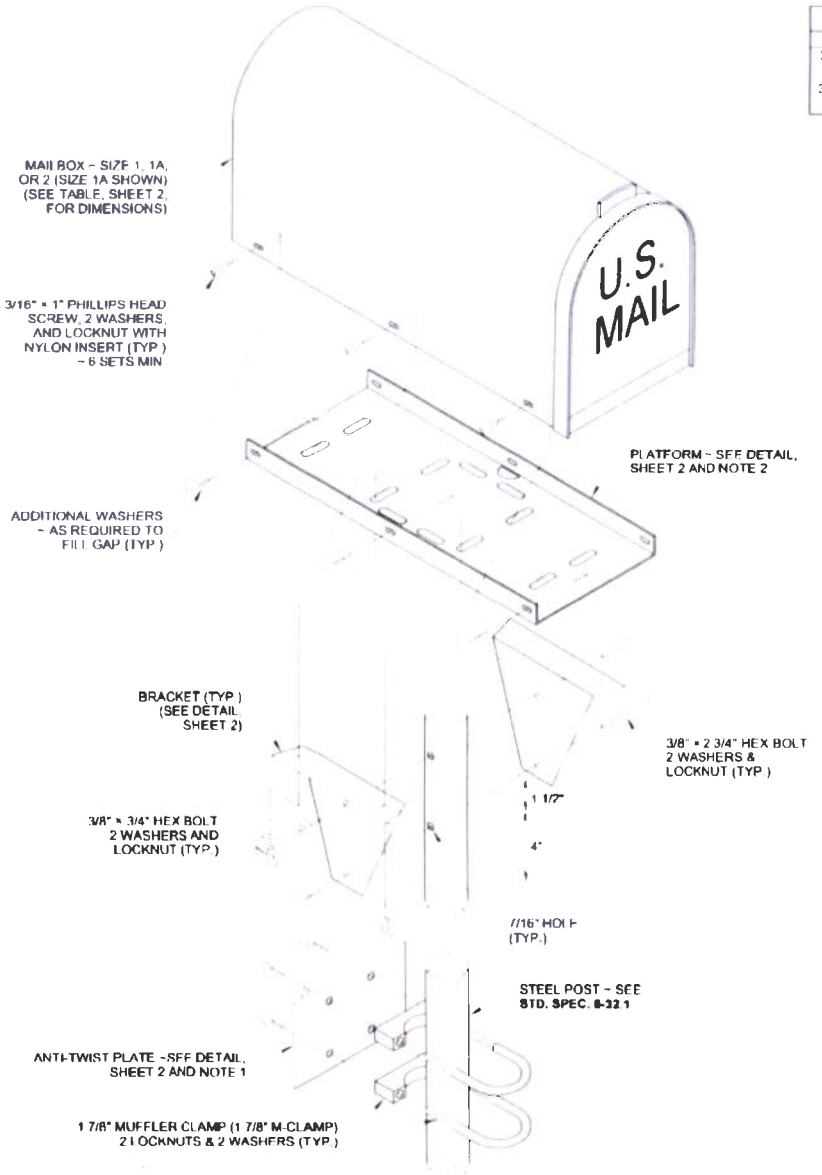
Aug 20, 2021

STATE DESIGN ENGINEER

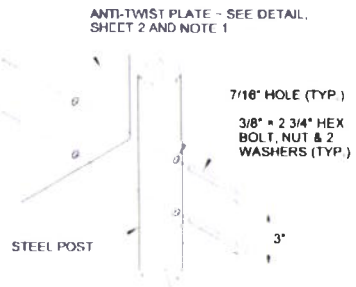
Washington State Department of Transportation

DRAWN BY MARK SUJKA

STEEL POST FASTENERS			
SIZE / TYPE	QUANTITY	WASHERS	LOCKNUTS
3/8" DIAM. × 2 3/4" BOLT	2	4	2
3/8" DIAM. × 3/4" BOLT	4	8	4
3/16" DIAM. × 1" SCREW	6	12	6
1 7/8" M-CLAMP	2	4	4



STEEL POST ASSEMBLY DETAIL



ALTERNATE ANTI-TWIST PLATE DESIGN

NOTES

1. The anchoring system shall meet MASH crash test criteria. The anti-twist plate anchoring system shown on this plan is deemed MASH compliant by WSDOT.

   The V-Wing socket and wedge assembly in a concrete base shown on **Std. Plan H-70.20** is also deemed MASH compliant by WSDOT and may be substituted in lieu of the anti-twist plate designs shown.

   Other MASH compliant anchoring systems manufactured by or recommended by the Type 1 support manufacturer are allowed to be used in lieu of the anti-twist plate or V-wing socket and wedge assembly.

2. The platform design shown on this plan features slots that accommodate several types of mailbox supports; only those slots necessary for assembling the type being installed are required. An adjustable platform may be used in lieu of this design, but it must fit the bracket design shown on this plan. Brackets are required for all single-post installations. Field drilling may be necessary.

3. Center the mailbox on the platform to ensure space for the mailbox door to open and to allow space for installing the fasteners (see ALIGNMENT DETAIL, Sheet 2). Spacing of mailbox mounting holes varies among manufacturers. Attachment of the mailbox to the platform may require drilling additional holes through the mailbox to fit the platform.

4. Attach a newspaper box to a steel post with two 1 7/8" (in) Muffler Clamps spaced 4" (in) apart. Field drill 7/16" (in) holes in the newspaper box to fit. Newspaper boxes must not extend beyond the front of the mailbox when the mailbox door is closed.

5. A Type 2 Support (**Standard Plan H-70.20**) is required when 2 or more mailboxes are to be installed on one support.

Aug 17, 2021

MAILBOX SUPPORT TYPE 1

STANDARD PLAN H-70.10-02

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

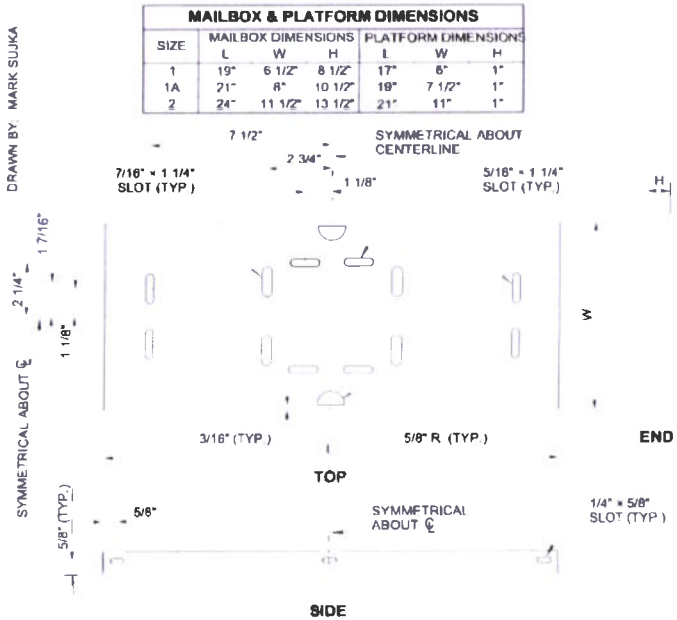
Aug 17, 2021

STATE BRIDGE ENGINEER

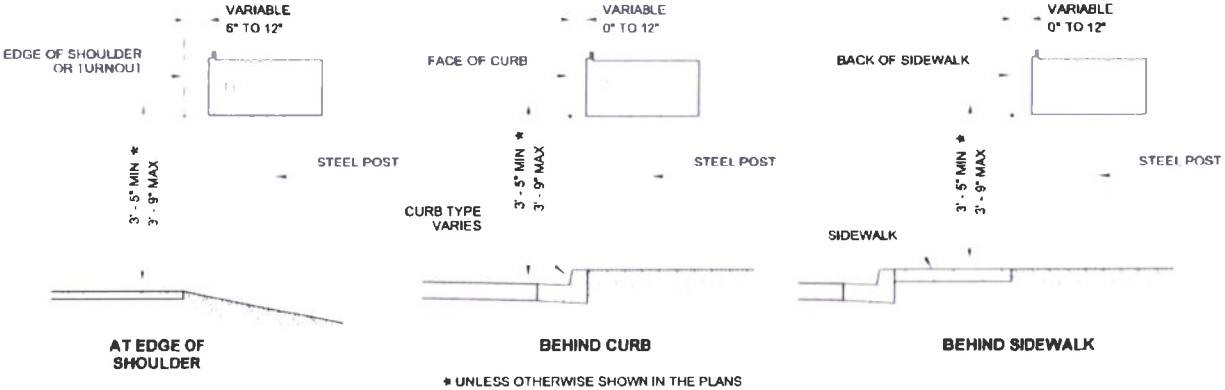
Washington State Department of Transportation

DRAWN BY: MARK SUJKA

MAILBOX & PLATFORM DIMENSIONS						
SIZE	MAILBOX DIMENSIONS			PLATFORM DIMENSIONS		
	L	W	H	L	W	H
1	19"	6 1/2"	8 1/2"	17"	6"	1"
1A	21"	8"	10 1/2"	19"	7 1/2"	1"
2	24"	11 1/2"	13 1/2"	21"	11"	1"

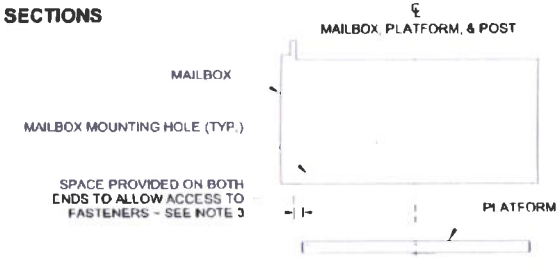


PLATFORM DETAIL

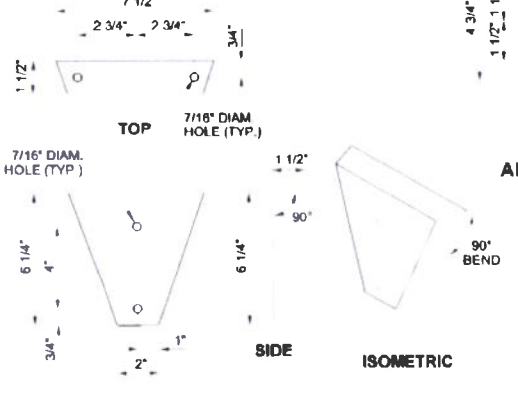


* UNLESS OTHERWISE SHOWN IN THE PLANS

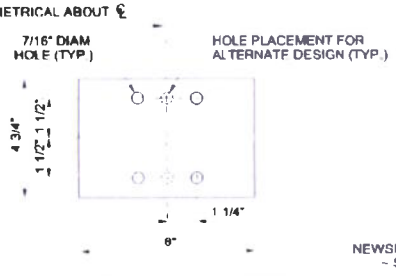
MAILBOX PLACEMENT SECTIONS



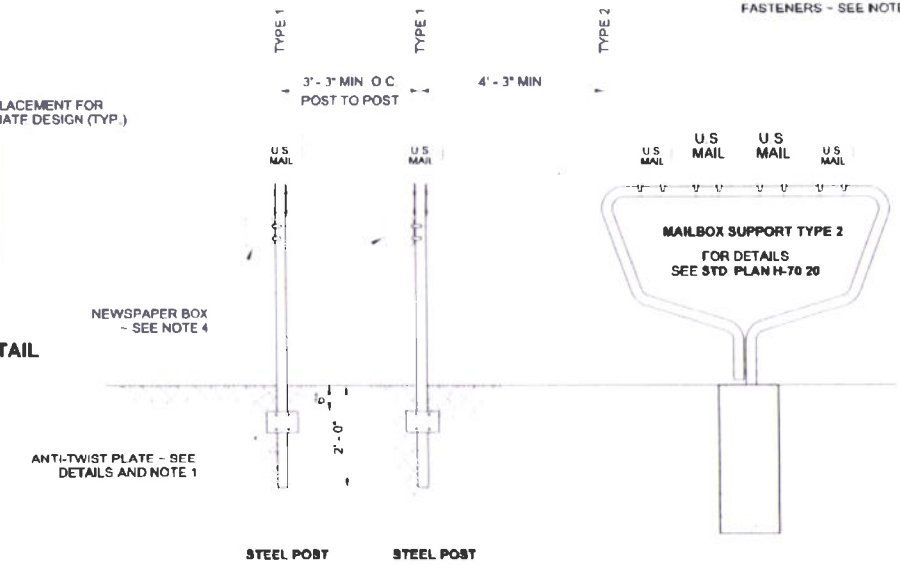
ALIGNMENT DETAIL



BRACKET DETAIL



ANTI-TWIST PLATE DETAIL



POST PLACEMENT DETAIL

JOHN PATRICK DONAHUE — STATE OF WASHINGTON — 29023 — REGISTERED PROFESSIONAL ENGINEER

Aug 17, 2021

MAILBOX SUPPORT TYPE 1

STANDARD PLAN H-70.10-02

SHEET 2 OF 2 SHEETS

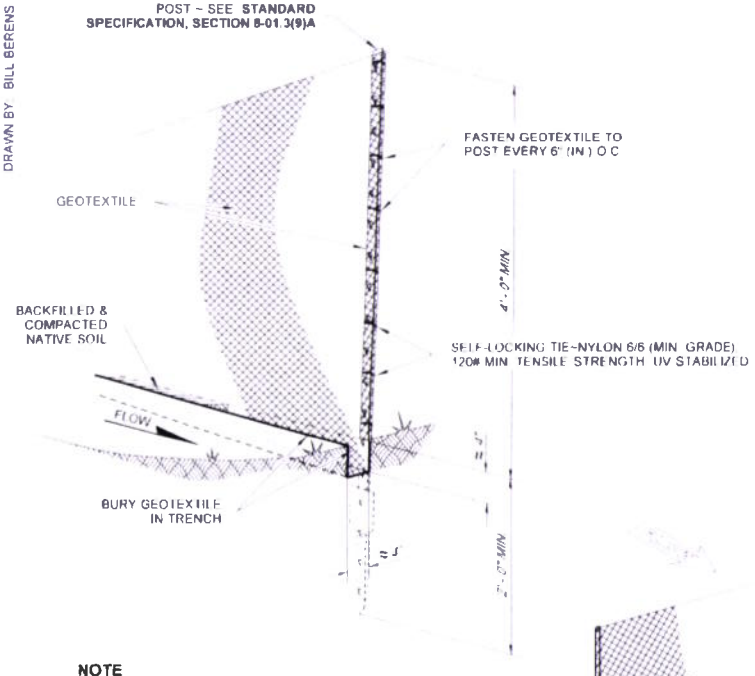
APPROVED FOR PUBLICATION

Aug 17, 2021

STATE DESIGN ENGINEER

Washington State Department of Transportation

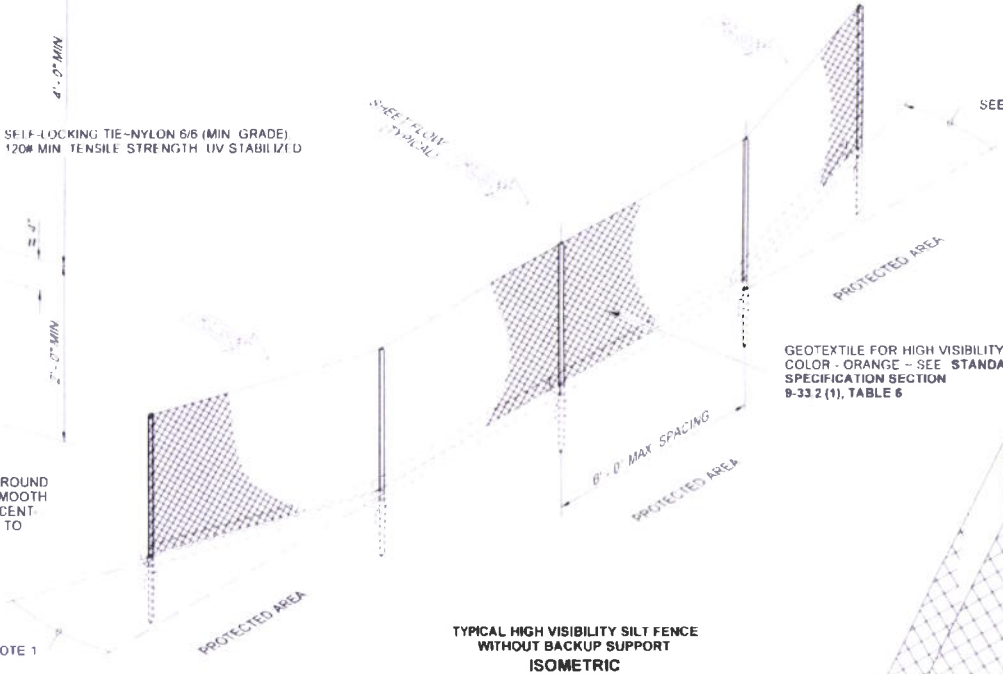
DRAWN BY BILL BERENS



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.

TYPICAL INSTALLATION DETAIL
(STEEL POSTS SHOWN)

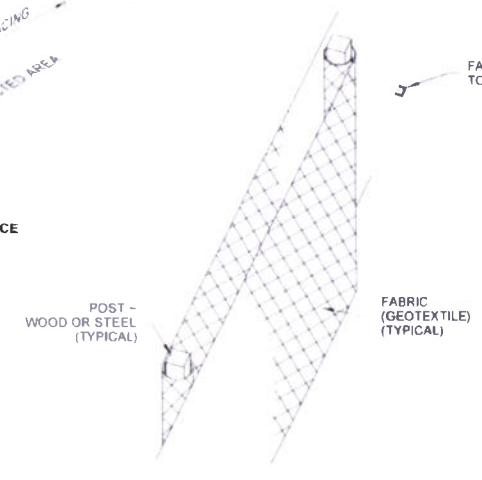


TYPICAL HIGH VISIBILITY SILT FENCE WITHOUT BACKUP SUPPORT
ISOMETRIC
(STEEL POSTS SHOWN)

NOTES

1. Angle Terminal end uphill 24" (in) to 48" (in) to prevent flow around fence (Typical)
2. Perform maintenance in accordance with **Standard Specification, Sections 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.

GEOTEXTILE FOR HIGH VISIBILITY SILT FENCE COLOR - ORANGE – SEE **STANDARD SPECIFICATION SECTION 9-33.2 (1), TABLE 6**



SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP. JOINING SECTIONS SHALL NOT BE PLACED IN LOW SPOTS OR IN SUMP LOCATIONS.

SPLICE DETAIL
(WOOD POSTS SHOWN)

STATE OF WASHINGTON · JULI DEE HARTWIG · NO. 1422 EXP. 06/21/2021 · LANDSCAPE ARCHITECT

Hartwig, Juli
Jun 4 2019 10:48 AM

HIGH VISIBILITY SILT FENCE

STANDARD PLAN I-30.17-01

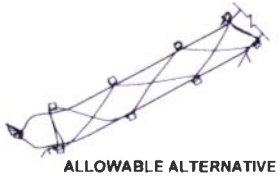
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

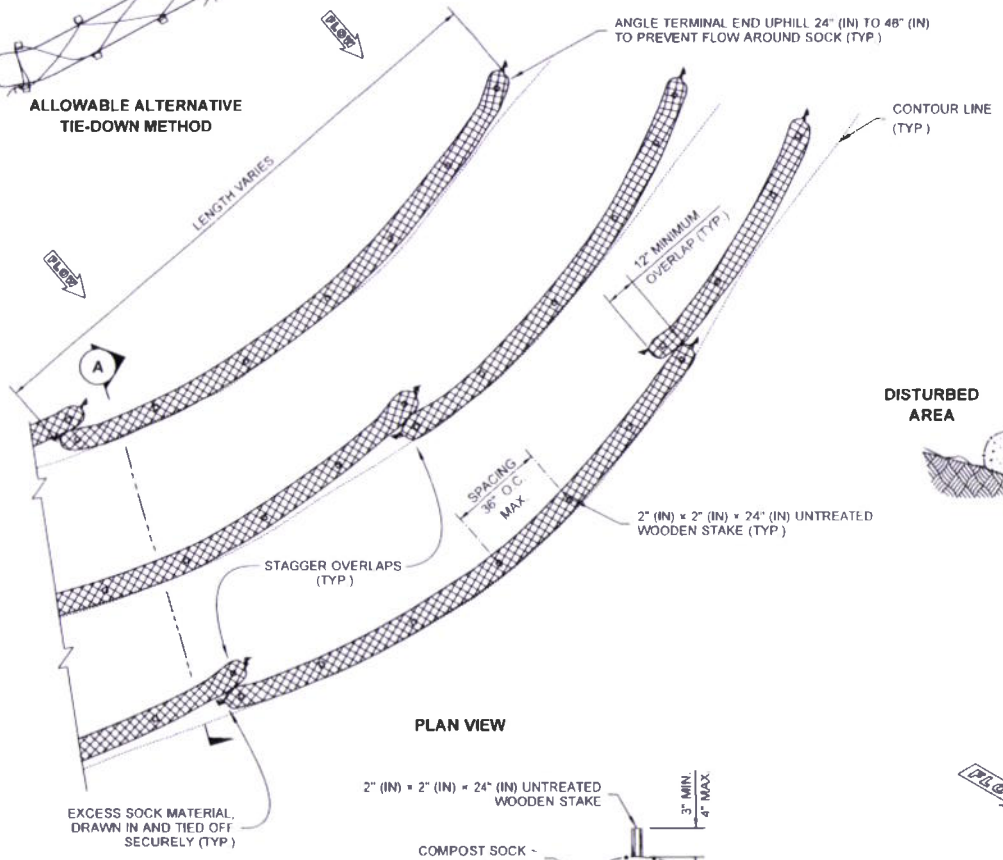
STATE DESIGN ENGINEER

Washington State Department of Transportation

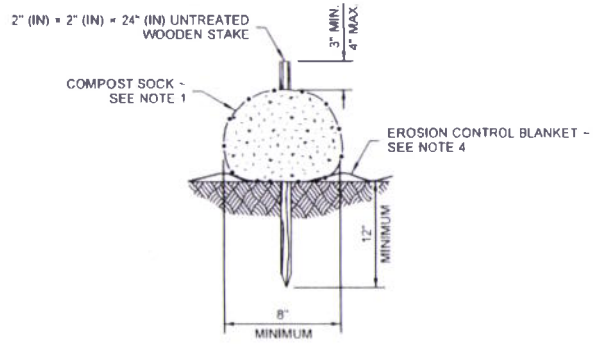
DRAWN BY: FERN LIDDELL



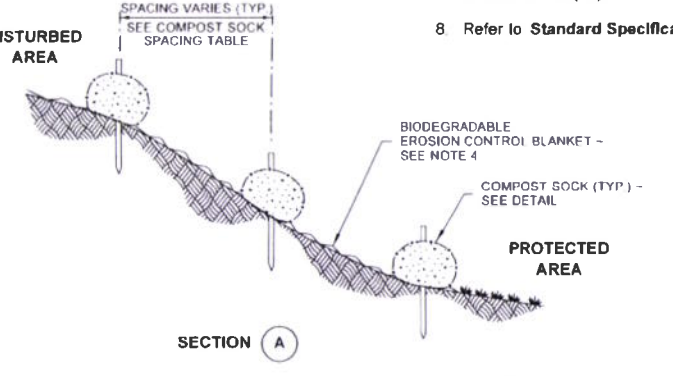
ALLOWABLE ALTERNATIVE TIE-DOWN METHOD



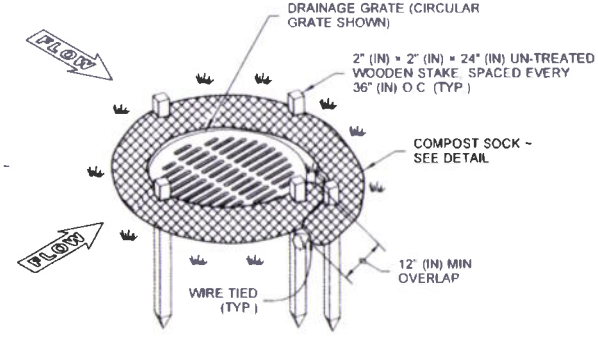
PLAN VIEW



COMPOST SOCK DETAIL



SECTION (A)



ISOMETRIC VIEW

CATCH BASIN INSTALLATION

8" DIAMETER MINIMUM COMPOST SOCK SPACING TABLE	
SLOPE	MAXIMUM SPACING
1H : 1V	5' - 0"
2H : 1V	10' - 0"
3H : 1V	15' - 0"
4H : 1V	20' - 0"

NOTES

1. Compost Sock shall be in accordance with **Standard Specification, Section 9-14.5(6).**
2. Securely knot each end of Compost Sock. Overlap adjacent Compost Sock ends 12" (in) behind one another and securley tie together.
3. Compost to be dispersed on site as determined by the Engineer, when vegetation covers the surface.
4. If Erosion Control Blanket is specified, place Compost Sock on top of blanket. See **Standard Plan I-60.10.**
5. Install Compost Sock perpendicular to flow along contours.
6. Remove sediment from the up slope side of the Compost Sock when accumulation has reached 1/2 of the effective height of the Compost Sock without compromising the intended function of the Compost Sock per **Standard Specification, section 8-01.3(12)** as determined by the Engineer.
7. Perform maintenance in accordance with **Standard Specification, Section 8-01.3(15).**
8. Refer to **Standard Specification, Section 8-01.3(16)** for removal.

STATE OF WASHINGTON · JULI DEE HARTWIG · NO. 1422 EXP. 06/21/2021 · LANDSCAPE ARCHITECT

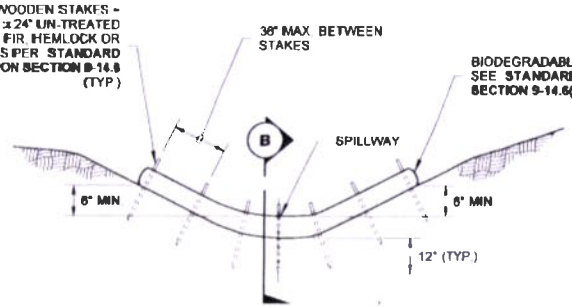
Hartwig, Juli
Jun 4 2019 8:06 AM

COMPOST SOCK

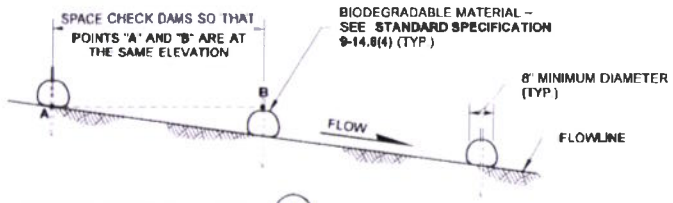
STANDARD PLAN I-30.40-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Roark, Steve
Jun 12 2019 7:41 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation



TYPICAL CHANNEL SECTION

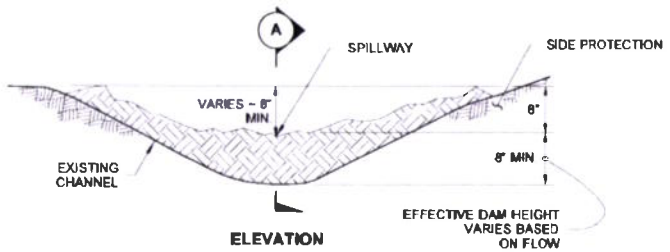


CHANNEL PROFILE - SECTION (B)

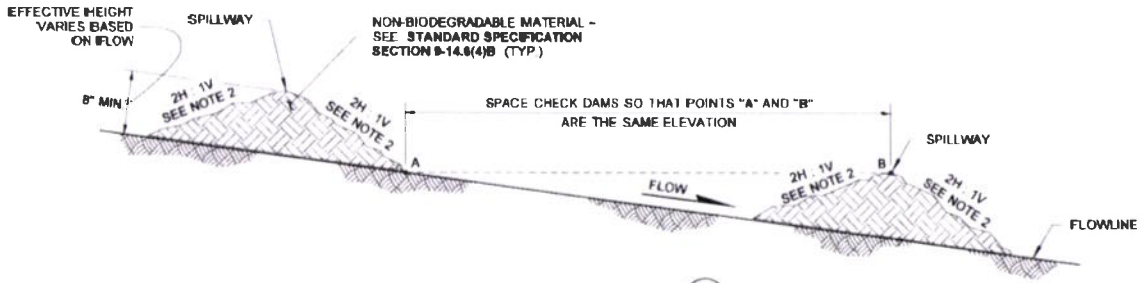
BIODEGRADABLE CHECK DAM

BIODEGRADABLE CHECK DAM NOTE

1 Biodegradable Check Dams may need additional or modified staking to prevent undercutting or scouring.



ELEVATION



EXTENDED SECTION (A)

NON-BIODEGRADABLE CHECK DAM

NON-BIODEGRADABLE CHECK DAM NOTES

1 Non-Biodegradable Manufactured Check Dam devices approved for use under **Standard Specification Section 9-14.6(4)B** shall be installed per manufacturer's recommendations and shall perform in accordance with **Standard Specification Section 8-01.3(6).**

2 Rock Check Dams with slopes parallel to the roadway that are steeper than 10 H : 1 V shall be placed outside of the clear zone or behind traffic barrier.

3 To ensure adequate detention time, Rock Check Dams used as sediment control may need to be enhanced with plastic that meets the requirements of **Standard Specification Section 9-14.6(3)** or fabric that meets the geotextile requirements of **Standard Specification Section 9-33.2(1), Table 6.**

GENERAL NOTES

1. Check Dams shall meet the requirements of **Standard Specification Sections 8-01.3(6) and 9-14.6(4).**
2. In channels, install the sloped ends of the Check Dam a minimum of 8" higher than the spillway to ensure water flows over the dam and not around it.
3. Perform maintenance in accordance with **Standard Specification Section 8-01.3(15).**
4. Remove Check Dams in accordance with **Standard Specification Section 8-01.3(16).**

DRAWN BY: FERN LINDELL

STATE OF WASHINGTON · JULI DEE HARTWIG · NO. 1422 EXP. 06/21/2023 · LANDSCAPE ARCHITECT

Jul 6, 2022

CHECK DAMS ON CHANNELS

STANDARD PLAN I-50.20-02

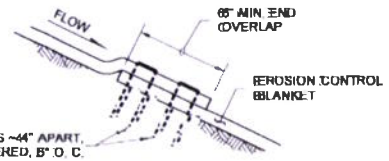
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

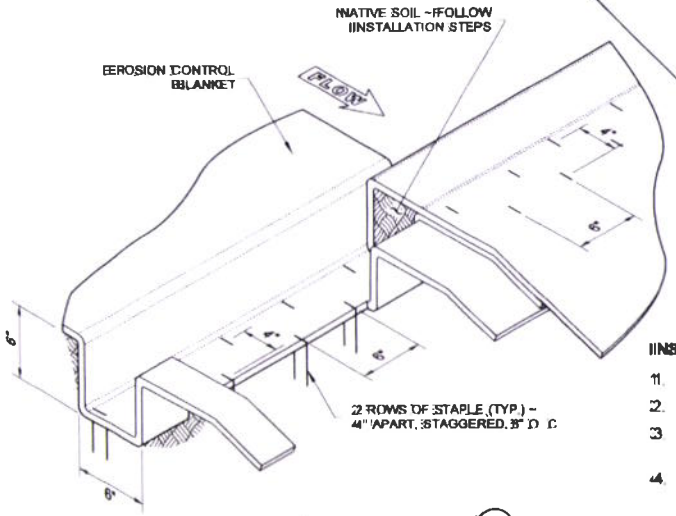
Mark Gaines Jul 6, 2022

STATE DESIGN ENGINEER

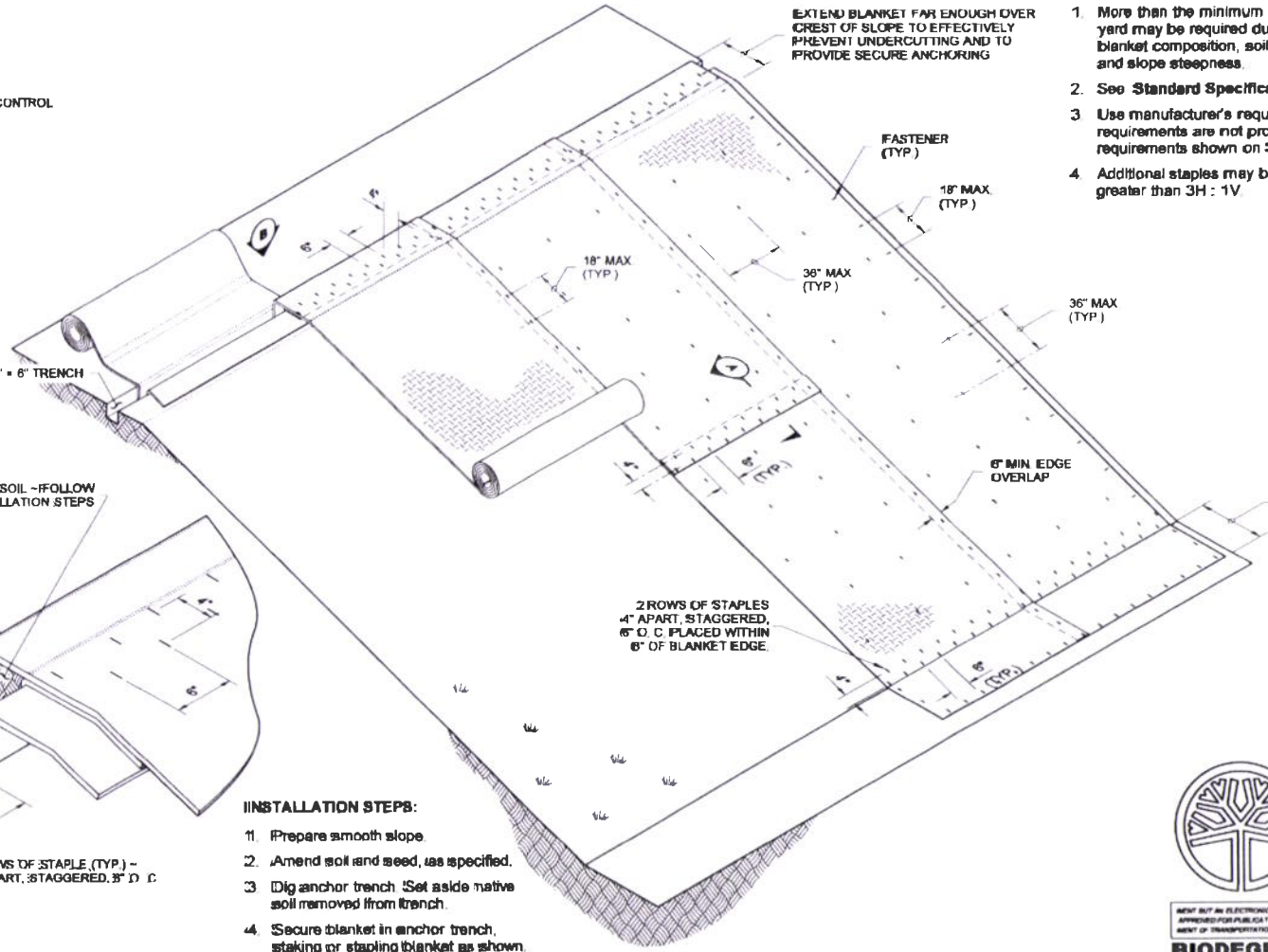
Washington State Department of Transportation



SHINGLE SPLICE ~ SECTION (A)



INITIAL ANCHOR ~DETAIL (B)



ISOMETRIC VIEW

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.

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.

DRAWN BY: LISA CYFORD

STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECT
SANDRA L. SALISBURY
SANDRA L. SALISBURY
LICENSE NO. 660
DATE: 6/6/13

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

BIODEGRADABLE EROSION CONTROL BLANKET PLACEMENT FOR SLOPES

STANDARD PLAN I-60.10-01

SHEET 1 OF 1 SHEET

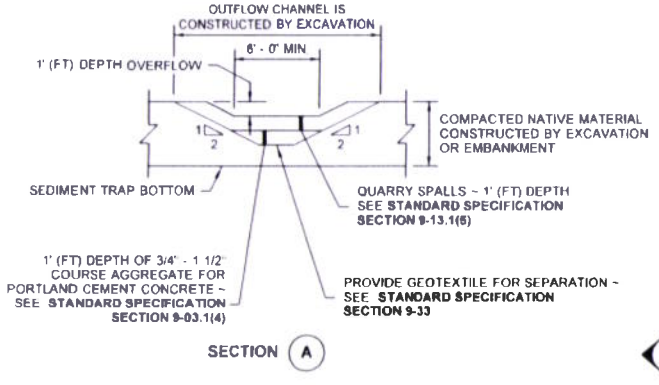
APPROVED FOR PUBLICATION

Pasco Bakotich III 6/10/13

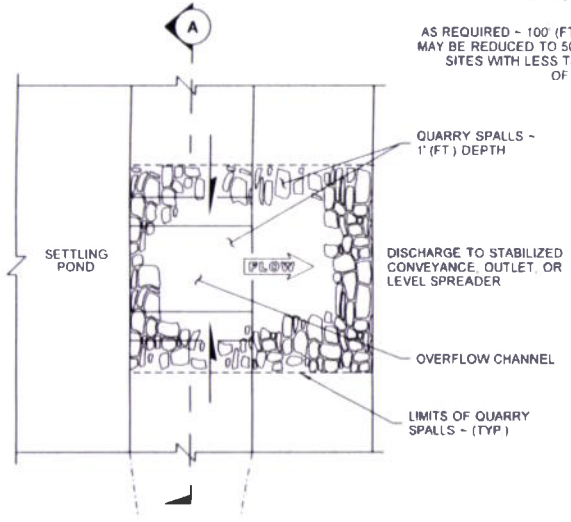
STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

DRAWN BY FERN UDDELL

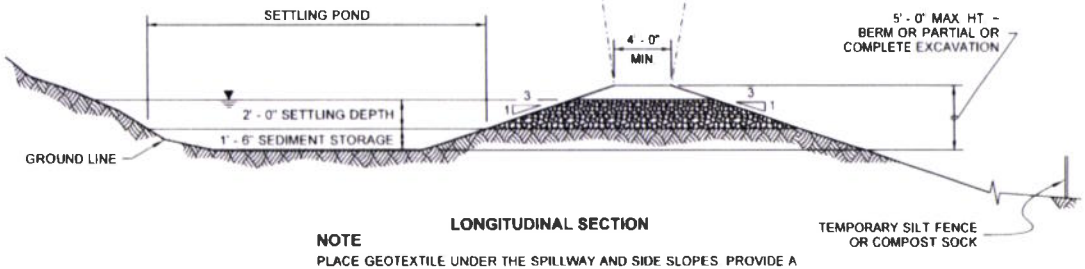


SECTION (A)



PARTIAL PLAN VIEW OF BERM

SHOWN LARGER FOR CLARITY

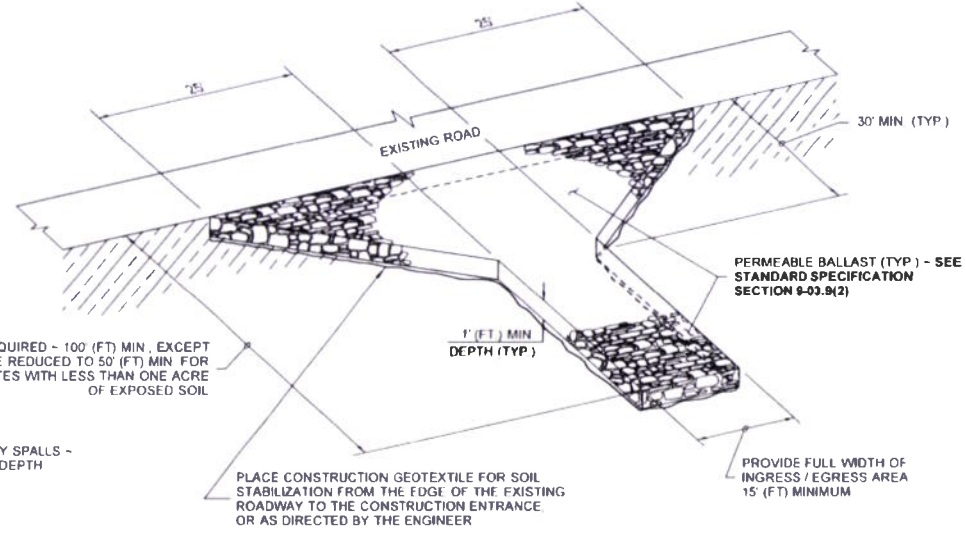


LONGITUDINAL SECTION

NOTE

PLACE GEOTEXTILE UNDER THE SPILLWAY AND SIDE SLOPES. PROVIDE A CONTINUOUS LAYER BETWEEN THE GRAVEL/ROCK AND THE NATIVE EARTHEN MATERIAL

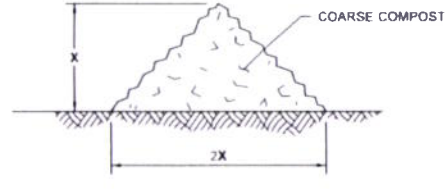
TEMPORARY SEDIMENT TRAP



ISOMETRIC VIEW

STABILIZED CONSTRUCTION ENTRANCE

STABILIZED CONSTRUCTION ENTRANCE SHALL MEET THE REQUIREMENTS OF **STANDARD SPECIFICATION SECTION 8-01.3(7).**



X = 1' - 0" FOR SLOPES 4H:1V OR FLATTER

X = 1' - 6" FOR SLOPES STEEPER THAN 4H:1V

TYPICAL SECTION

COMPOST BERM DETAIL

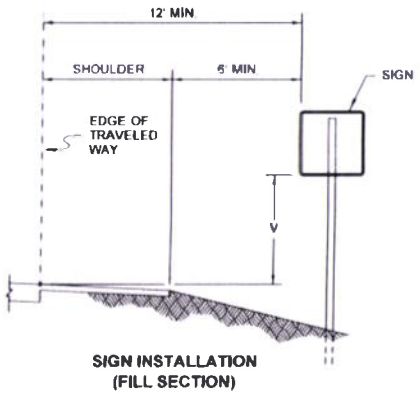
STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
JULI DEE HARTWIG
LICENSE NO. 1422
DATE 06-21-17

MISCELLANEOUS EROSION CONTROL DETAILS

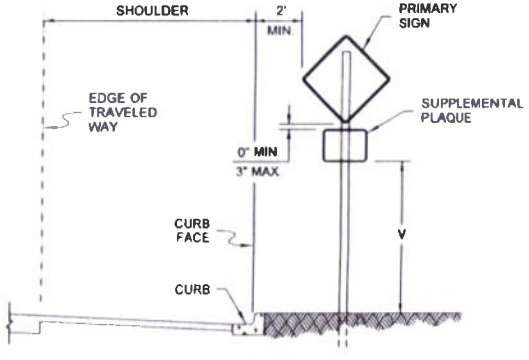
STANDARD PLAN I-80.10-02

SHEET 1 OF 1 SHEET

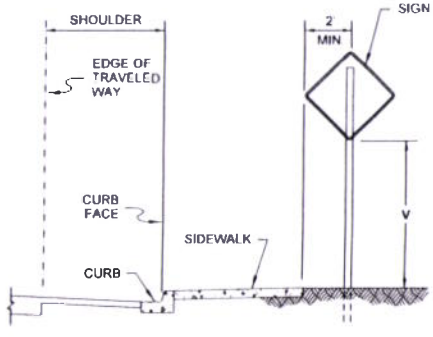
APPROVED FOR PUBLICATION
Carpenter, Jeff
Jul 15 2016 2:28 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation



SIGN INSTALLATION (FILL SECTION)



SIGN INSTALLATION (CURB SECTION)



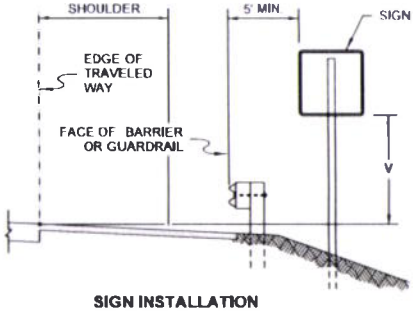
SIGN INSTALLATION (SIDEWALK AND CURB SECTION)

NOTES

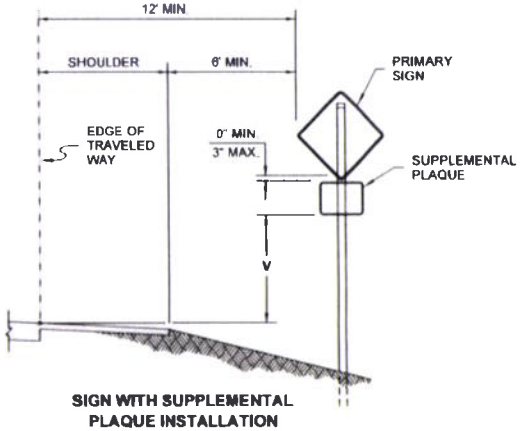
1. For sign installation details, see **Standard Plan G - series.**
2. Where it is impractical to locate a sign with the lateral offset, a minimum of 2'(ft) offset may be used. A 1'(ft) lateral offset may be used in business, commercial or residential areas
3. The "V" height for signs, with an area of more than 50 square feet and two or more sign supports, is 7 feet in both rural and urban areas.

HEIGHT V		
	TO BOTTOM OF SIGN (NO SUPPLEMENTAL PLAQUE)	TO BOTTOM OF SUPPLEMENTAL PLAQUE (WHEN REQUIRED)
RURAL	5' MINIMUM	4' MINIMUM
URBAN	7' MINIMUM	6' MINIMUM

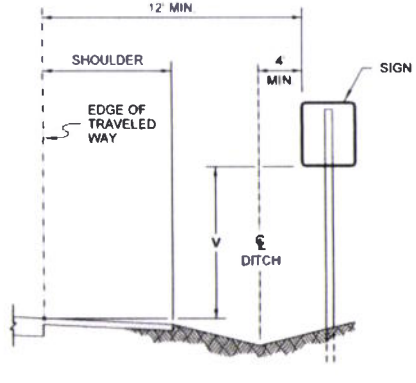
DRAWN BY: FERN UDDELL



SIGN INSTALLATION (BEHIND TRAFFIC BARRIER)



SIGN WITH SUPPLEMENTAL PLAQUE INSTALLATION (FILL SECTION)



SIGN INSTALLATION (DITCH SECTION)

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

2020.09.23 13:48:58 -07'00'

CLASS A CONSTRUCTION SIGNING INSTALLATION

STANDARD PLAN K-80.10-02

SHEET 1 OF 1 SHEET

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Date: 2020.09.25 14:46:01 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

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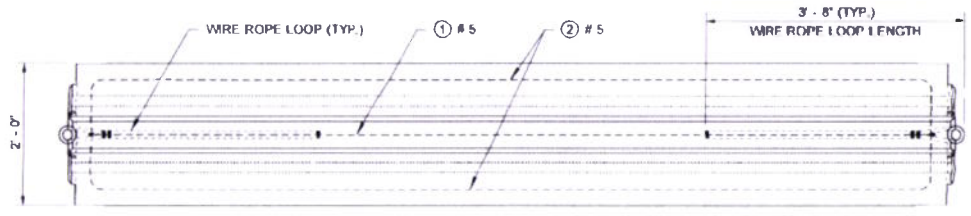
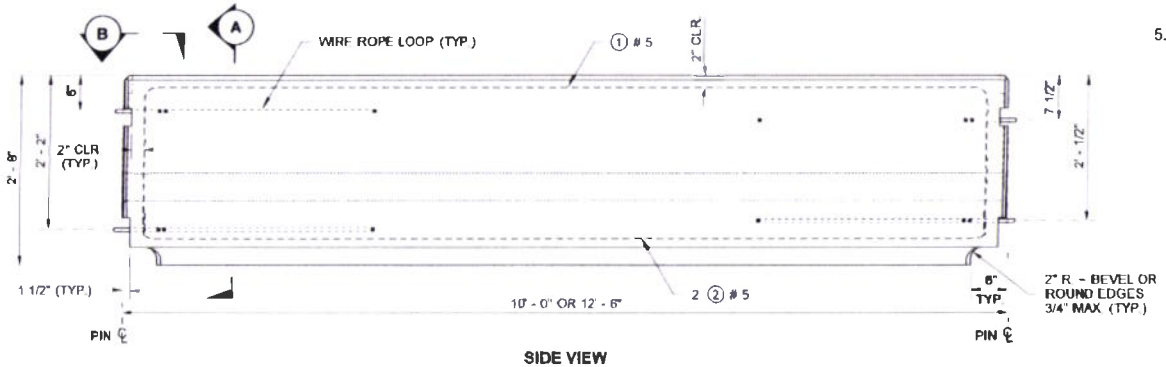


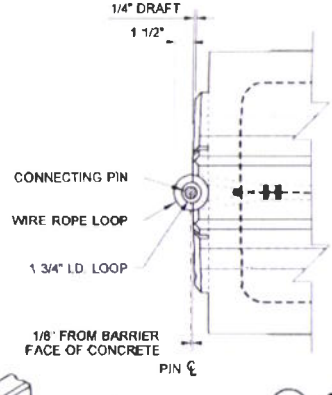
TOP VIEW



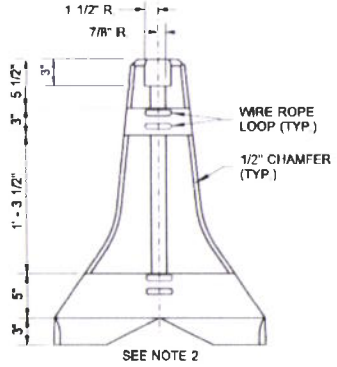
SIDE VIEW

NOTES

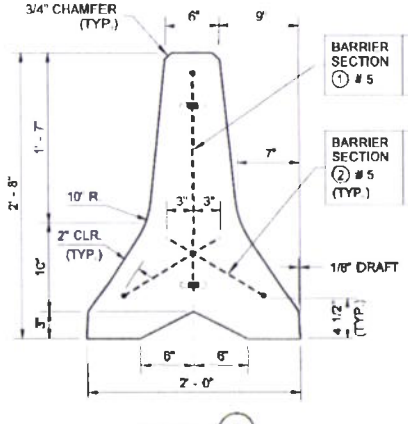
1. Type 2 Barrier and Barrier Terminals are allowed in temporary installations only. Do not install new Type 2 Barrier and Barrier Terminals fabricated after December 31, 2019. This plan is provided as a means to verify that any Type 2 Barrier and Barrier Terminals fabricated prior to December 31, 2019 meet the plan requirements and cross-sectional dimensions as specified in **Standard Specifications, Section 6-10.3(6).**
2. Wire rope loops shall be 3' - 8" long, except for the top loop of the Barrier Terminal, which shall be 2' - 0" long.
3. Except for the locations of the wire rope loops, the dimensions shown in END VIEW are typical for both ends of a Barrier Section or opposing ends of Barrier Terminals.
4. Connecting and Drift Pin head designs vary among different manufacturers. Pin designs that are shaped differently than those shown in the detail are acceptable, if the bearing surface is within the minimum and maximum widths specified.
5. The vertical spacing of the Wire Rope Loops in a Barrier Terminal is determined by the end of the Barrier Segment to which it is being connected. See BARRIER CONNECTION DETAIL (Sheet 2).



PARTIAL SECTION (B)

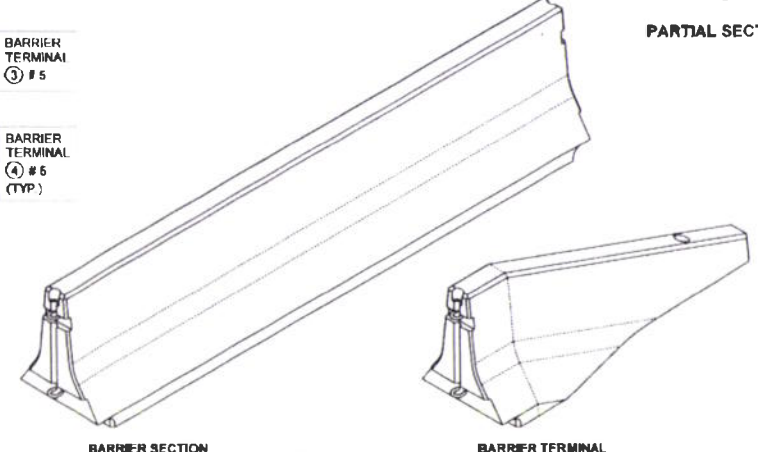


END VIEW



BARRIER SECTION	BARRIER TERMINAL
① # 5	③ # 5
② # 5 (TYP.)	④ # 5 (TYP.)

SECTION (A)



BARRIER SECTION

BARRIER TERMINAL

ISOMETRIC VIEWS

Aug 17, 2021

CONCRETE BARRIER TYPE 2

STANDARD PLAN K-80.32-00

SHEET 1 OF 2 SHEETS

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Aug 17, 2021

STATE DESIGN ENGINEER

Washington State Department of Transportation

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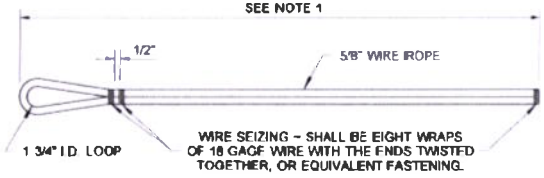
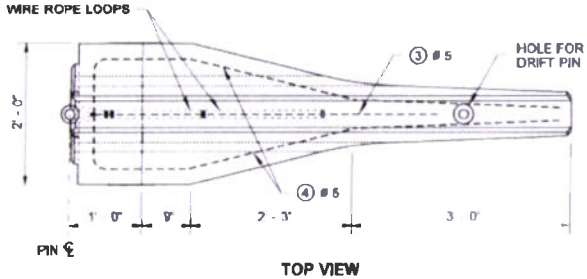
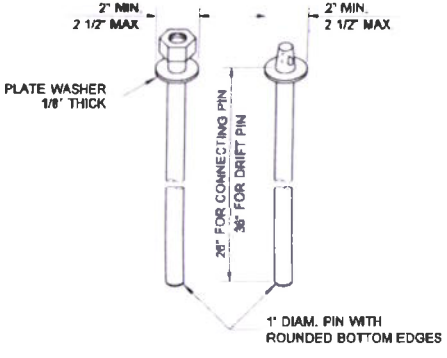


WIRE ROPE LOOP DETAIL

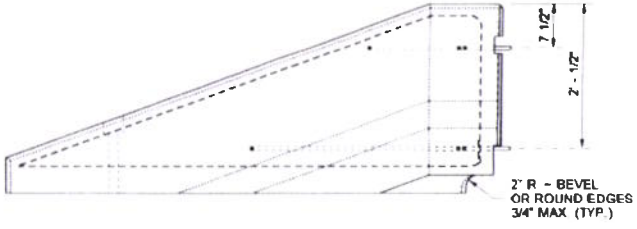


TOP VIEW

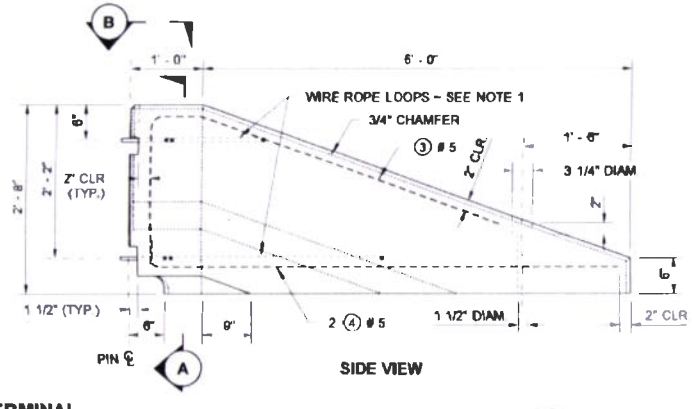


CONNECTING PINS AND DRIFT PINS

SEE NOTE 4



SIDE VIEW



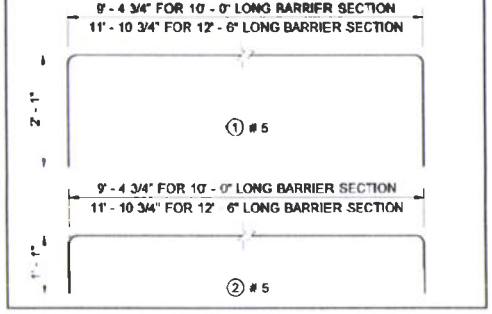
SIDE VIEW

BARRIER TERMINAL

SEE NOTE 5

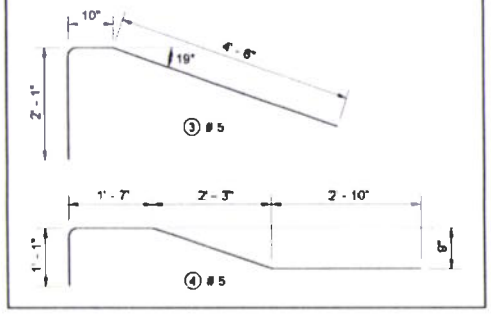
SHEET 1

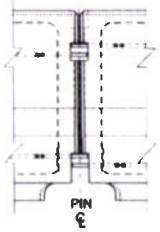
BARRIER SECTION REINFORCING STEEL BENDING DIAGRAM



SHEET 2

BARRIER TERMINAL REINFORCING STEEL BENDING DIAGRAM





BARRIER CONNECTION DETAIL

Aug 17, 2021

CONCRETE BARRIER TYPE 2

STANDARD PLAN K-80.32-00

SHEET 2 OF 2 SHEETS

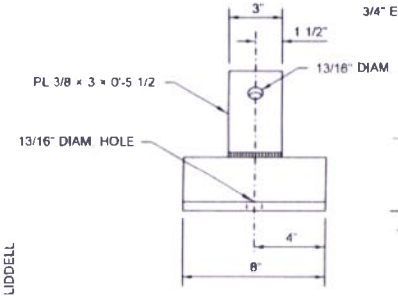
APPROVED FOR PUBLICATION

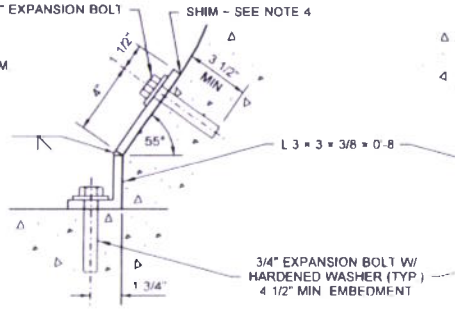
Aug 17, 2021

STATE DESIGN ENGINEER

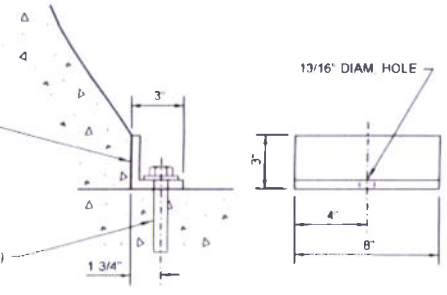
Washington State Department of Transportation

DRAWN BY FERN LIDDELL





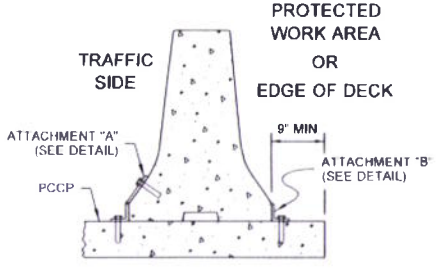
ATTACHMENT "A" DETAIL

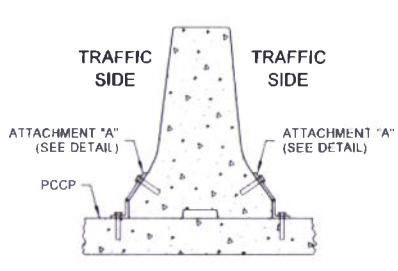


ATTACHMENT "B" DETAIL

NOTES

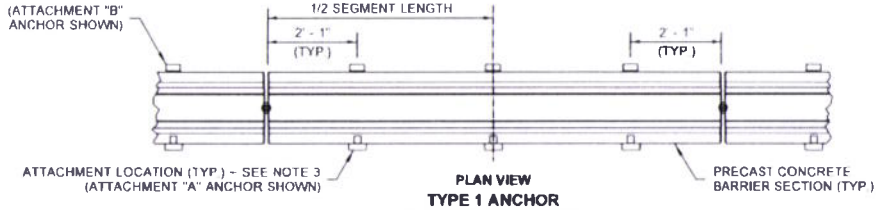
1. The intended use of this plan is for the temporary installation of the Type 2 Concrete Barrier on cement concrete pavement, bridge decks, or hot mix asphalt pavement, and Type F Concrete Barrier on Bridge decks.
2. Use Type 1 Anchors when the concrete pavement or bridge deck is 6" or thicker with 2' wide concrete barrier only. Use Type 2 Anchors **(Standard Plan K-80.37)** with narrow base barrier.
3. Adjust the location of the Type 1 Anchors to avoid the main reinforcing in the deck when drilling holes.
4. Use shims to properly fit the Type 1 Anchors to the barrier and roadway surfaces.
5. Upon removal of the Type 1 Anchors, clean the bolt holes and fill them with grout according to **Standard Specification, Section 6.02.3(20)**.
6. Remove the Type 3 Anchors by first driving the steel pins down through the barrier further into the pavement to allow lifting the barrier without interference, then remove the pins from the pavement.
7. After removing the Type 3 Anchors, clean the pin holes and fill them with sealant according to **Standard Specification, Section 9-04.2.**





SECTION VIEWS

TYPE 1 ANCHOR
ATTACHMENT LOCATIONS

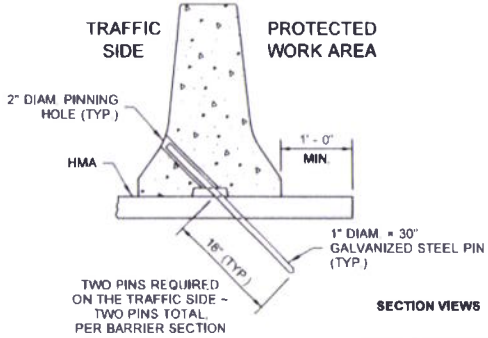


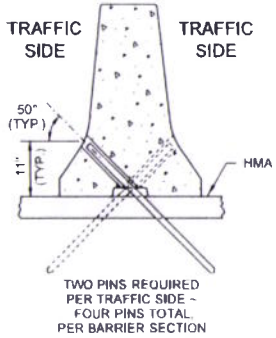
PLAN VIEW

TYPE 1 ANCHOR
ATTACHMENT LOCATIONS

TYPE 1 ANCHOR

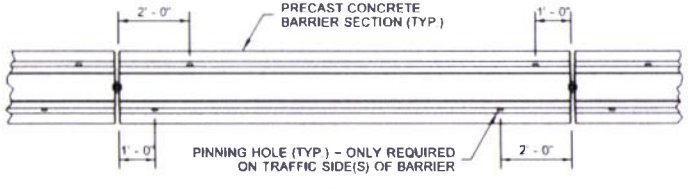
TEMPORARY INSTALLATION OF PRECAST
CONCRETE BARRIER TYPE 2 ON CEMENT CONCRETE PAVEMENT OR
BRIDGE DECK AND TEMPORARY INSTALLATION OF PRECAST
CONCRETE BARRIER TYPE F **(STANDARD PLAN C-60.10)**
ON BRIDGE DECK





SECTION VIEWS

TYPE 3 ANCHOR
PIN LOCATIONS



PLAN VIEW

TYPE 3 ANCHOR
PIN LOCATIONS

TYPE 3 ANCHOR

TEMPORARY INSTALLATION OF PRECAST
CONCRETE BARRIER TYPE 2 ON HOT MIX ASPHALT PAVEMENT

JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED
PROFESSIONAL ENGINEER

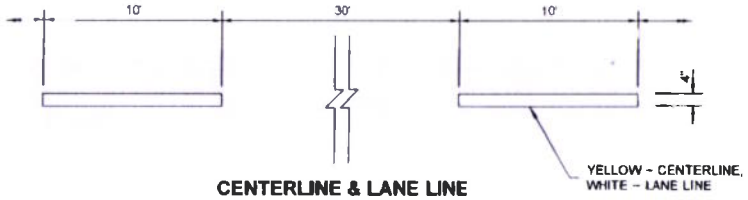
2020.09.10
10:04:22 -07'00'

TEMPORARY CONCRETE BARRIER ANCHORING

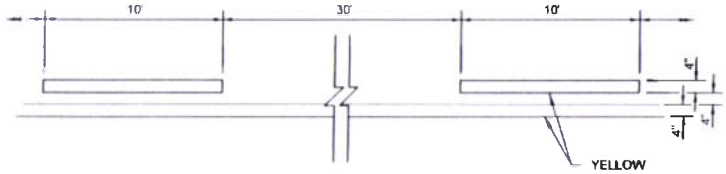
STANDARD PLAN K-80.35-01

SHEET 1 OF 1 SHEET

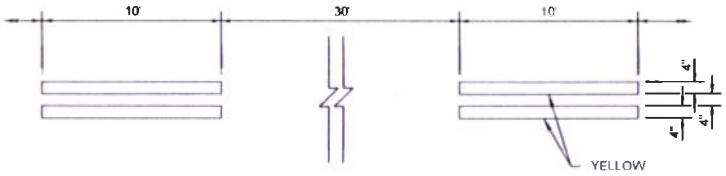
APPROVED FOR PUBLICATION
Roark, Steve Digitally signed by Roark, Steve
Date: 2020.09.16 10:23:50 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation



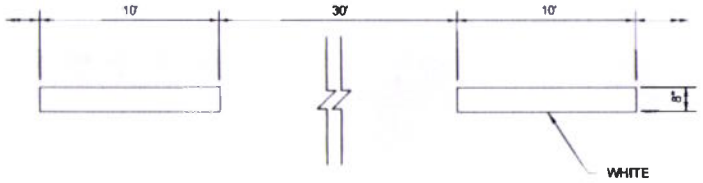
CENTERLINE & LANE LINE



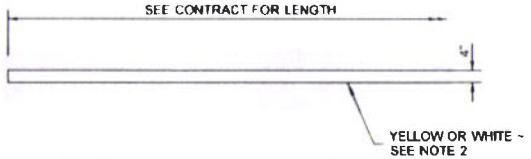
NO-PASS LINE & TWO-WAY LEFT-TURN CENTERLINE



REVERSIBLE LANE LINE



WIDE BROKEN LANE LINE

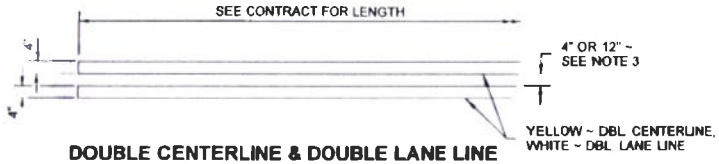


EDGE LINE & SOLID LANE LINE

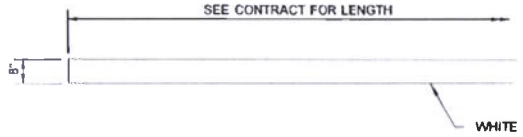
NOTES

1. Dotted Extension Line shall be the same color as the line it is extending.
2. Edge Line shall be white on the right edge of traveled way, and yellow on the left edge of traveled way (on one-way roadways). Solid Lane Line shall be white.
3. The distance between the lines of the Double Centerline shall be 12" everywhere, except 4" for left-turn channelization and narrow roadways with lane widths of 10 feet or less. Local Agencies (on non-state routes) may specify a 4" distance for all locations.

   The distance between the lines of the Double Lane Line shall be 4".

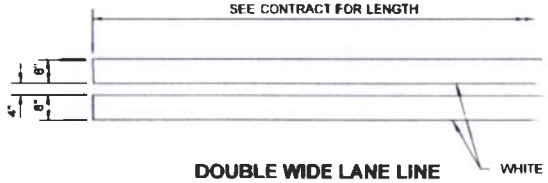


DOUBLE CENTERLINE & DOUBLE LANE LINE

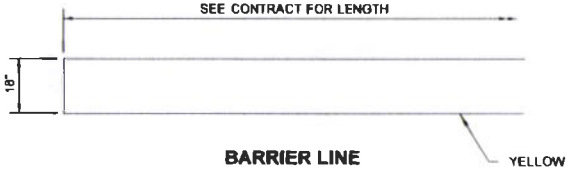


WIDE EDGE LINE & WIDE SOLID LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



DOUBLE WIDE LANE LINE



BARRIER LINE

DRAWN BY: FERN LIDDELL

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

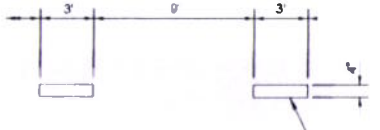
SHEET 1 OF 4 SHEETS

APPROVED FOR PUBLICATION

Mark Gaines Aug 2, 2022

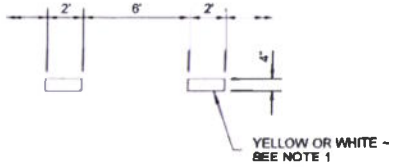
STATE DESIGN ENGINEER

Washington State Department of Transportation



DOTTED LANE LINE

WIDE DOTTED LANE LINE

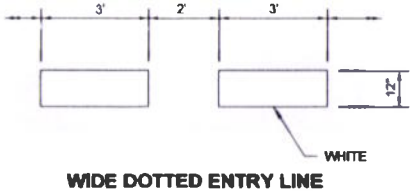


DOTTED EXTENSION LINE

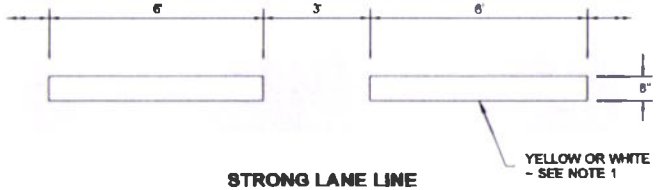
WIDE DOTTED EXTENSION LINE

DRAWN BY: FERN LIDDELL

ROUNDABOUT SPECIFIC LINES

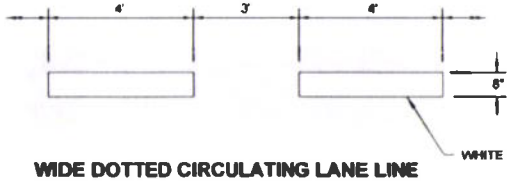


WIDE DOTTED ENTRY LINE

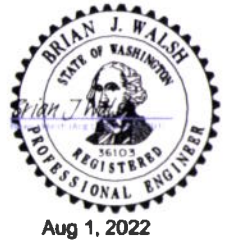


STRONG LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



WIDE DOTTED CIRCULATING LANE LINE



Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 2 OF 4 SHEETS

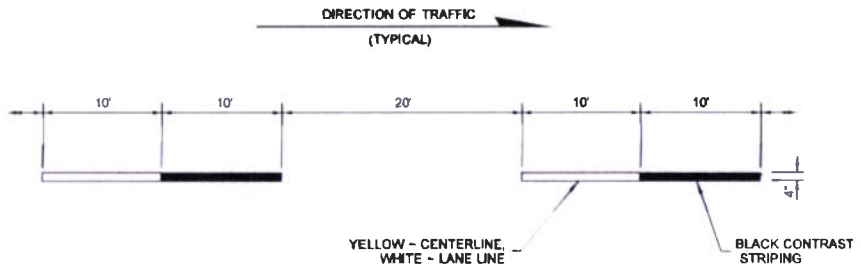
APPROVED FOR PUBLICATION

Mark Gaines Aug 2, 2022

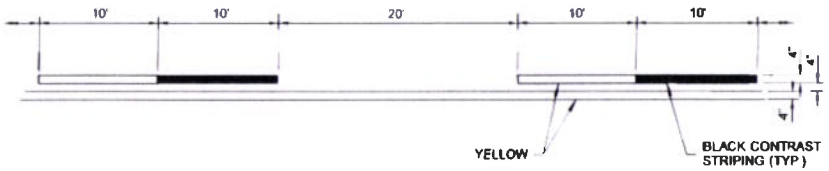
STATE DESIGN ENGINEER

Washington State Department of Transportation

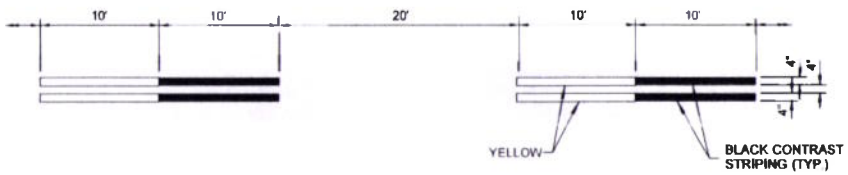
DRAWN BY FERN LIDDELL



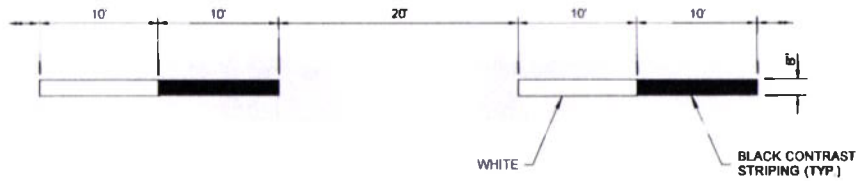
CENTERLINE & LANE LINE



NO-PASS LINE & TWO-WAY LEFT-TURN CENTERLINE



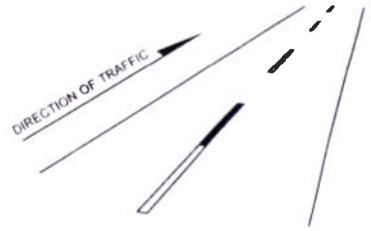
REVERSIBLE LANE LINE



WIDE BROKEN LANE LINE

NOTE

1. Dotted Extension Line shall be the same color as the line it is extending.



ISOMETRIC VIEW

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 3 OF 4 SHEETS

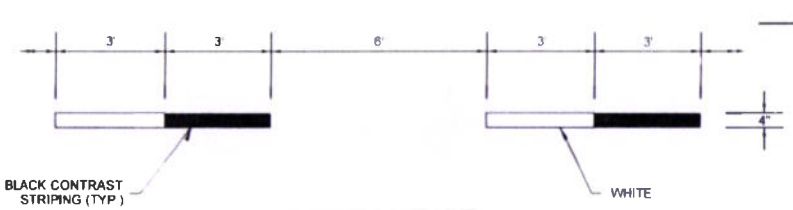
APPROVED FOR PUBLICATION

Aug 2, 2022

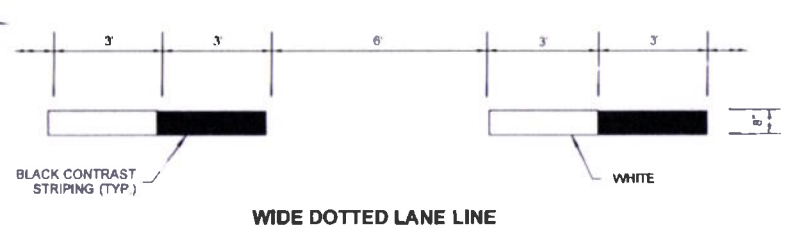
STATE DESIGN ENGINEER

Washington State Department of Transportation

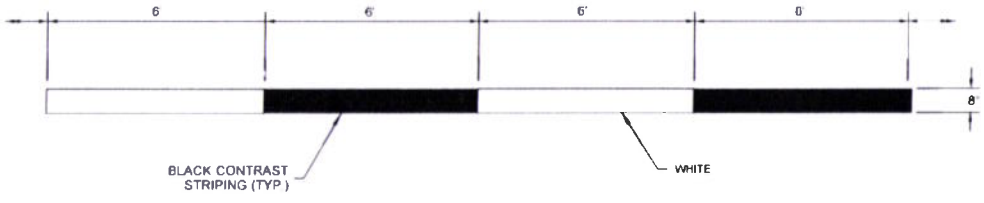
DRAWN BY: FERN LIDDELL



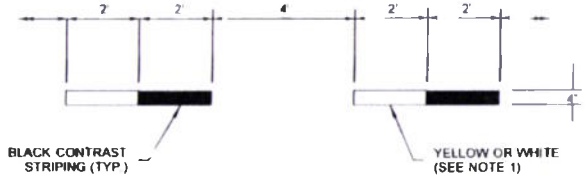
DOTTED LANE LINE



WIDE DOTTED LANE LINE

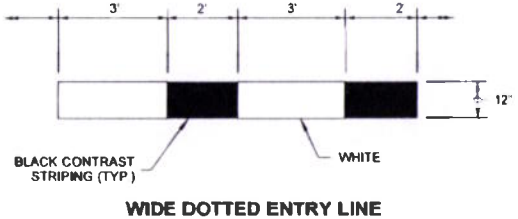


WIDE DOTTED EXTENSION LINE

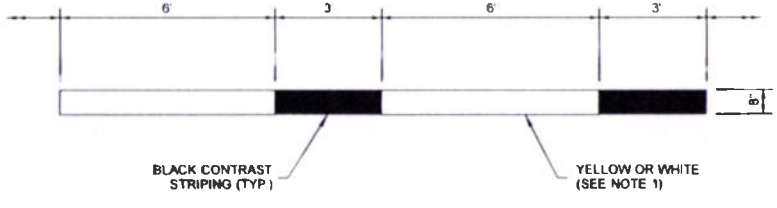


DOTTED EXTENSION LINE

ROUNDABOUT SPECIFIC LINES

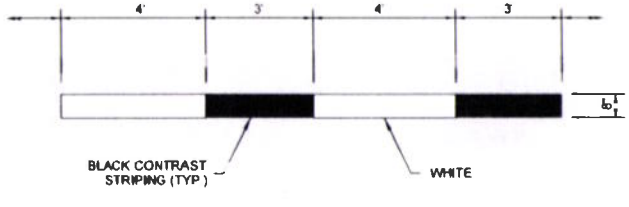


WIDE DOTTED ENTRY LINE



STRONG LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



WIDE DOTTED CIRCULATING LANE LINE

BRIAN J. WALSH
STATE OF WASHINGTON
16103
REGISTERED
PROFESSIONAL ENGINEER

Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

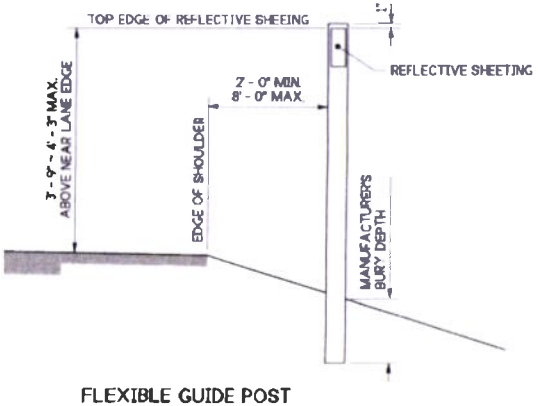
SHEET 4 OF 4 SHEETS

APPROVED FOR PUBLICATION

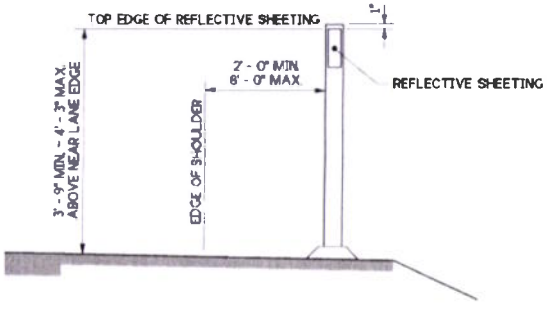
Aug 2, 2022

STATE DESIGN ENGINEER

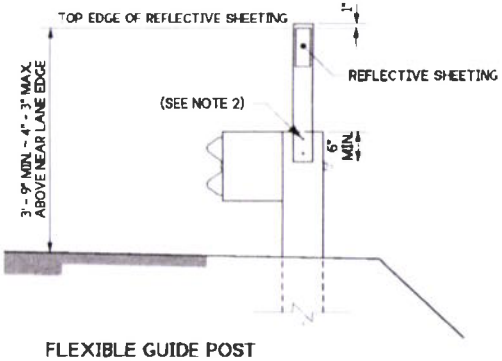
Washington State Department of Transportation



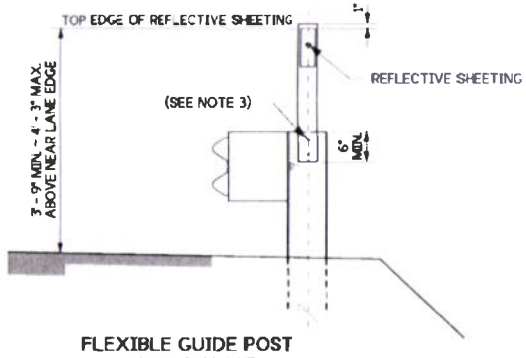
FLEXIBLE GUIDE POST
GROUND MOUNT



FLEXIBLE GUIDE POST
SURFACE MOUNT



FLEXIBLE GUIDE POST
GUARDRAIL MOUNT
(USE FOR WOODEN GUARDRAIL POSTS)



FLEXIBLE GUIDE POST
GUARDRAIL MOUNT
(USE FOR STEEL GUARDRAIL POSTS)

NOTES

1. Guide Posts and Barrier Delineators per Standard Specification **Sections 8-10, 9-17 and 9-18.**

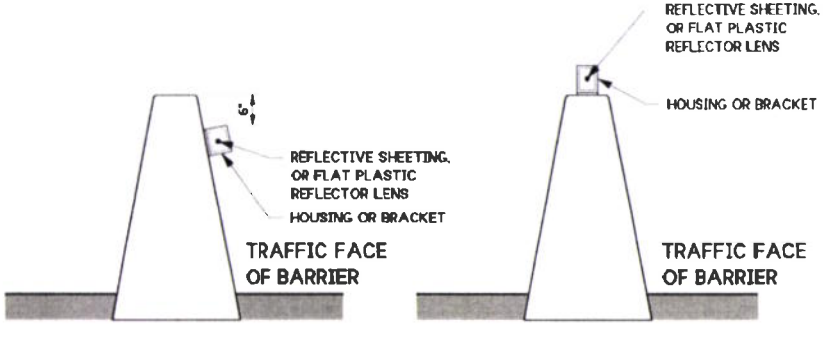
2. Guide posts shall be fastened to the wooden guardrail post using two 2" x 3/8" (in) LAG screws with washers, along centerline of post. Also acceptable is any approved attahment method submitted by the guide post manufacturer.

3. Guide posts shall be fastened to the steel guardrail posts using two Hot Dip galvanized 2" x 3/8" (in) bolts with a washer on both sides, a lock washer, and nut. The nut shall be tightened to properly compress the lock washer. The drilled holes in the guardrail post web shall be painted with galvanizing repair paint as described in **Standard Specification Section 8-11.3(1)B.** Also acceptable is any approved attachment method submitted by the guide post manufacturer.

4. Spacing of Barrier Delineators shall be as shown in the Plans.

GUIDE POST TYPE ~ REFLECTIVE SHEETING APPLICATIONS
(SEE NOTE 5)

TYPE W	TYPE WW		TYPE Y	TYPE YY	
○	◫		●	⊕	
FACING TRAFFIC	FACING TRAFFIC	BACK SIDE	FACING TRAFFIC	FACING TRAFFIC	BACK SIDE
WHITE	WHITE	WHITE WHITE	YELLOW	YELLOW	YELLOW



SIDE MOUNT
PER CONTRACT

BARRIER DELINEATORS

TOP MOUNT
PER CONTRACT

(CONCRETE BARRIER TYPES AND LOCATIONS VARY, SINGLE-SLOPE IN MEDIAN SHOWN)

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

Oct 16, 2023

GUIDE POSTS AND BARRIER DELINEATORS

STANDARD PLAN M-40.10-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Oct 17, 2023
STATE DESIGN ENGINEER
Washington State Department of Transportation

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:

		COLOR CODE
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