PUBLIC WORKS DEPARTMENT

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS

CIP Project T-047

INVITATION TO BID
MAY 11, 2022

Prepared by:

Kevin Brown, P.E.

Gray & Osborne, Inc.
3710 168th Street NE, Bldg. B, Suite 210
Arlington, WA 98223
360-454-5490 Ext. 1605

Approved for Construction by:

DocuSigned by:
Jeff Brauns
7D170AD9C4CD436...

4/19/2022

Jeff Brauns, P.E., Public Works Director

City of Newcastle
12835 Newcastle Way, Suite 200
Newcastle, WA 98056-1316
425-649-4143 Ext. 124

CONTRACT BID DOCUMENTS

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CITY OF NEWCASTLE

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PART 1

INVITATION TO BID

INVITATION TO BID
CITY OF NEWCASTLE

NOTICE IS HEREBY GIVEN that sealed bids will be received by the City of Newcastle, Washington, until **2:00 PM EXACTLY** local time on **Wednesday, May 11, 2022** at which time bids will be opened publicly and read.

The City of Newcastle seeks a contractor to furnishing all labor, materials, and equipment necessary to complete the project referenced below.

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS
CIP Project T-047

Sealed proposals must be clearly marked BID FOR SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS T-047 and shall be addressed to the following:

City of Newcastle Public Works
12835 Newcastle Way, Suite 200
Newcastle, WA 98056-1316
Attention: Kerry Sullivan

The work provides for the construction of 3,900 feet of pedestrian and bicycle improvements on the north side of SE May Creek Park Drive from SE 86th Place to 121st Avenue SE. Work includes, but is not limited to, excavation, grading, subgrade preparation, furnishing and installing gravel surfacing, hot mix asphalt, storm drainage improvements, cement concrete curbs, gutters, and sidewalks, retaining walls, permanent signing and pavement marking; miscellaneous surface restoration; traffic control; and other work indicated in the Contract Provisions.

The estimated construction cost is $1,800,000 to $1,900,000

The work shall be completed within one hundred ten (110) working days after the commencement date stated in the Notice to Proceed.

Plans, specifications, addenda, and the Bidders (plan holder) list for this project may be viewed online from Builder's Exchange at http://bxwa.com. Click on "Posted Projects", "Public Works", "City of Newcastle", and "Projects Bidding. Bidders must register to be notified of future addenda and to be placed on the Bidders List. It is the Bidder's responsibility to check for addenda and other new documents online. Contact Builders Exchange of Washington at 425-258-1303 if you require assistance.

Proposals are to be submitted only on the forms provided with Part 3 of these Contract Provisions. Substitutions will not be accepted during the bid process.

Each bid must be accompanied by a certified check, cashier's check, or surety company bid bond, on a form acceptable to the City, from a State-licensed Surety Company as surety, in an amount not less than five percent (5%) of the bid amount, payable to the City of Newcastle. A one hundred percent (100%) Contract Bond must be submitted by the Successful Low Bidder (herein after "Contractor").

Incomplete proposals and proposals received after the time fixed for the opening will not be accepted or considered. Faxed or emailed responses are not acceptable. Bid results will be made available on the City website, www.newcastlewa.gov/bids.

All bidders must certify that they are not on the Comptroller General's list of ineligible contractors or on the list of parties excluded from Federal procurement or non-procurement programs. Bids may not be withdrawn after bid opening.

Financing of the Project has been provided by City of Newcastle, Washington. The City of Newcastle expressly reserves the right to reject any or all Proposals and to waive minor irregularities or informalities and to Award the Project to the lowest responsive, responsible bidder as it best serves the interests of the City.

The City of Newcastle, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21 , Nondiscrimination in Federally-assisted programs of the Department of Transportation, issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

Kerry Sullivan
Assistant City Engineer
kerrys@newcastlewa.gov
425-386-4113

PART 2

INSTRUCTIONS FOR BIDDERS
AND
GENERAL TERMS AND CONDITIONS

INSTRUCTIONS FOR BIDDERS AND
GENERAL TERMS AND CONDITIONS

1. STANDARD SPECIFICATIONS

Bidding shall be in strict accordance with the 2022 Standard Specifications for Road, Bridge and Municipal Construction, issued by the Washington Department of Transportation (WSDOT), as modified or supplemented by the Special Provisions (hereafter, "Specification" or "Specifications"). Deletion, amendment, alteration or additions to any subsection or portion of the Standard Specifications shall pertain only to that particular portion of the section, and the balance shall continue to be in force. Bidders shall obtain these publications at the Bidder's own expense. The WSDOT specifications can be found at www.wsdot.wa.gov/publications/manuals

2. BID FORM

No bid shall be considered except those submitted on the Bid Proposal forms included with the Contract Provisions. Substitutions will not be accepted during the bid process.

3. INTERPRETATION OF CONTRACT DOCUMENTS

No oral interpretations will be made to any Bidder as to the meaning of the bid or Contract Documents; and any oral communication is not binding upon the City of Newcastle. Requests for an interpretation or questions must be directed via email to Kerry Sullivan at kerrys@newcastlewa.gov. Questions via phone or in person will not be accepted. **Bidders shall submit questions no later than 5:00pm four (4) working days before the bid opening.** Any interpretation deemed necessary by the City will be in the form of an addendum to the Bid documents. Addendums will be posted on the Builder's Exchange website, http://www.bxwa.com. All such addenda shall become part of the bid specifications. Where a response or addendum from the City cannot be obtained prior to the bid opening, it is understood that the Bidder has made provisions for a more costly method before submitting the bid. Where conflicts or omissions occur in Plans, Specifications, or other related Contract Documents, Bidders shall assume the more stringent requirements and verify with the City before beginning work.

4. ADDENDA

No alteration or modification of the terms and conditions of these Contract Documents will be binding unless included in a written addendum issued and approved by the City. Bidders are responsible for checking the City of Newcastle link on the Builder's Exchange website for the issuance of any addenda prior to submitting a bid. Bids shall reflect performance according to the Addenda. No Bid Bond shall be released for failure to consider Addenda.

5. SIGNATURE

Each bid must be signed in longhand by the Bidder with the Bidder's usual signature. Bids by partnership must be signed by one of the managing partners, followed by the partner's printed name. Bids by corporations must be signed by an officer having authority to sign, followed by the officer's printed name and position.

6. BID BOND

A Bid Bond is required, See Part 3.

7. PRE-BID CONFERENCE

There is no Pre-bid Conference associated with this bid.

8. NON-COLLUSION

By bid signature, the Bidder certifies that the Bid is non-collusive, and not made in the interest of any person not named, and that the Bidder has not induced or solicited others to submit a sham offer, or to refrain from proposing.

9. GIFTS

The City's Code of Ethics and Washington State law prohibit City employees from soliciting, accepting, or receiving any gift, gratuity or favor from any person, firm or corporation involved in a contract or transaction. To ensure compliance with the City's Code of Ethics and state law, the Bidder or a **Successful Low Bidder (herein after "Contractor")** awarded the contract, shall not give a gift of any kind to City employees or officials, at any time, even after award of a contract.

10. SUBMISSION OF BIDS

To receive consideration, bids must be submitted prior to the specified time for opening, in a sealed envelope, clearly marked with company name, address, telephone number, bid number, title of bid, and time of opening to the City of Newcastle. Bidders assume the risk for the method of delivery chosen. The City assumes no responsibility for delayed delivery. No oral, telephonic, email or facsimile bids or modifications will be accepted. Any bid or modification of a bid received at the City of Newcastle after the stated time and date for the bid closing will not be accepted or considered.

Bids remain confidential until bid opening after which bids are considered a public record subject to public disclosure under Chapter 42.56 RCW. Bidder shall mark as "proprietary" any information that Bidder believes meets the exemption under RCW 42.56.270(1). This assertion of proprietary information will be considered by the City in response to public records requests. Bid results will be made available as soon as practical following the bid opening on the City website, www.newcastlewa.gov/bids.

11. WITHDRAWAL OF BIDS

See Specification 1-02.10.

12. BID PRICE

The bid price shall include everything necessary to perform and complete the project, including, but not limited to, furnishing all materials, equipment, tools, plant and landscape material, and other facilities and all management, superintendent's labor and service, except

as may be provided otherwise in the contract documents. The bid shall remain in effect for forty-five (45) calendar days after the bid opening. For City of Newcastle correction of discrepancy in bid price, see Specification 1-03.1.

13. PREVAILING WAGE

See Specification 1-07.9(1). See APPENDIX A for applicable wage rates.

14. ESTIMATED QUANTITIES

See Specification 1-02.3 and 1-04.6.

15. EXAMINATION OF SITE AND CONTRACT DOCUMENTS

See Specification 1-02.4.

16. CONTRACT BOND

See Specification 1-03.4 and Part 4

17. INDEMNIFICATION/HOLD HARMLESS

The Awarded Contractor shall defend, indemnify and hold the City and its officers, agents , officials, employees , and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, costs, and expenses arising out of or in connection with the performance of the Contract, except for injuries and damages caused by the sole neglect of the City.

This Contract is subject to RCW 4.24.115. In the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the City, its officers, officials, employees and volunteers, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Contractor's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of the contract.

18. INSURANCE

See Specification 1-07.18.

19. TAXES AND FEDERAL EXCISE TAX

Taxes are to be paid by the City as indicated on the Bid Proposal Sheet. Where no line item is provided for Washington State Sales Tax, Rule 171 (WAC 458-20-171) applies. No charge by the Bidder shall be made for federal excise taxes. The City of Newcastle, as a municipal corporation of the State of Washington, is exempt from federal excise tax and such taxes shall not be included in bid prices. The City of Newcastle agrees to furnish

Bidder, upon acceptance of articles supplied under this order, with an exemption certificate, if necessary.

20. CITY BUSINESS LICENSE

As mandated by NMC 5.15.030, if awarded the Contract, the Awarded Contractor shall obtain a City of Newcastle Business License prior to the execution of the Contract and shall maintain the business license in good standing throughout the term of the Contract. Information on obtaining a City business license is available at: www.newcastlewa.gov/businesslicense

21. LOW RESPONSIBLE BIDDER

It is the intent of the City to award the bid to the lowest responsive and responsible bidder. Before award, the bidder must meet the following state responsibility criteria and, if applicable, supplemental responsibility criteria to be considered a responsible bidder. The bidder is required to submit documentation demonstrating compliance with the criteria.

A. **State Responsibility Criteria.** The Bidder must meet the following state responsibility criteria as set forth in RCW 39.04.350:

1) At the time of bid submittal, have a current certification of registration in compliance with chapter 18.27 RCW.
2) Have a current Washington State Unified Business Identifier (UBI) number.
3) If applicable:
    a) Have Industrial Insurance (workers' compensation) coverage for the Bidder's employees working in Washington State, as required in Title 51 RCW;
    b) Have a Washington State Employment Security Department number, as required in Title 50 RCW; and
    c) Have a Washington State Department of Revenue state excise tax registration number, as required in Title 82 RCW.
4) Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).
5) Have received training from the Washington State Department of Labor & Industries or a training provider approved by the Department on the requirements related to public works and prevailing wage under chapter 39.04 RCW and chapter 39.12 RCW unless the bidder has completed three or more public works projects and has had a valid business license in Washington for three or more years, and
6) Within the three-year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the Washington State Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.

B. **Supplemental Bidder Responsibility Criteria.** If supplemental criteria apply to this project, the criteria are included in "Attachment A." The Bidder may make a written request

for the City to modify any or all of the supplemental criteria. Modification of supplemental criteria shall be at the City's discretion. Any modifications to the supplemental criteria shall be made by addenda prior to bid opening as set forth in Section 4.

C. **Performance Exception**. The lowest responsible bidder means a bid that meets the criteria under RCW 39.04.350 and has the lowest bid; provided, that if the City issues a written finding that the lowest bidder has delivered a project to the City within the last three years which was late, over budget, or did not meet specifications, and the City does not find in writing that such bidder has shown how they would improve performance to be likely to meet project specifications then the City may choose the second lowest bidder whose bid is within five percent of the lowest bid and meets the same criteria as the lowest bidder.

22. SUBCONTRACTOR RESPONSIBILITY

See Specification 1-08.1.

23. NON-RESPONSIVE BIDS

See Specification 1-02.13.

24. BID ERRORS

See Specification 1-03.1.

25. BID PROTEST

Any Bidder may file a written protest against award of the Contract to the lowest bidder within two full business days of bid opening. Within two business days of the bid opening, the City shall provide, if requested by a bidder, copies of the bids the City received for the project. The City shall allow at least two business days after providing bidders with copies of all bids before executing a contract for the project. A protest submittal shall be delivered to the City of Newcastle, City Clerk, 12835 Newcastle Way, Suite 200, Newcastle, WA 98056-1316, with the words "Bid Protest" prominently and clearly displayed on any outer cover containing the protest notice as well as the notice itself. The following minimum information must be included in the written protest notice: 1) the name, address and phone number (including area code) of the protesting bidder; and 2) the protesting bidder contact person's name and telephone number (including area code); and 3) a statement(s) describing the nature of the protest; and 4) the City bid number and title.

If the City intends to award the contract to other than the low bidder, a notice of intent to award shall be sent to all bidders. Any Bidder other than the selected bidder may protest the award using the procedure outlined above within five full business days of mailing the notice or two full business days of actual receipt by electronic or personal delivery.

No contract shall be executed earlier than two full business days (excluding holidays and weekends) from the date a written protest is received, or, if copies were requested by any

Bidder, two full business days following when the copies of the bids were provided by the City. The Bid Protester assumes the risk for method of delivery.

26. AWARD OF CONTRACT

See Specification 1-03.2, 1-03.3., 1-03.4 and 1-03.5.

27. NOTICE TO PROCEED

The Awarded Contractor shall not commence work until a Notice to Proceed has been issued by the City. A Notice to Proceed will be given after the Contractor has submitted a completed W-9 form and after the contract has been executed by the City and the Contractor, and where applicable, by any State or Federal agencies responsible for funding any portion of the Project. The time allowed for Physical Completion of the work shall begin as of the date specified in the Notice to Proceed, or if no date is specified, the next working day following the date of the Notice to Proceed

28. REQUEST TO SUBCONTRACT WORK

The Awarded Contractor shall complete and submit to the City a Request to Subcontract Work form three (3) working days prior to a subcontractor performing the work.

29. ASSIGNMENT

The Awarded contract, or any interest herein, or claim hereunder, shall not be assigned or transferred in whole or in part by the Contractor to any other person or entity without the prior written consent of the City, which consent will not be unreasonably withheld. In the event that such prior written consent to an assignment is granted, then the assignee shall assume all duties, obligations, and liabilities of Contractor as stated herein.

30. PAYMENT

The Awarded Contractor shall be paid, upon submission of a proper Payment Request, the prices stipulated herein for work performed (less deductions, if any), in accordance with all payment and retainage instructions herein. Submitted Payment Requests must contain the following minimum information:

A. Contract Number
B. Bid item number, bid quantity, unit, unit price and description as appropriate
C. Sales Tax as applicable

The Payment Request will be reviewed by the City before payment is made. If the City is in disagreement with the Payment Request, the City shall file a notice of dispute. Contractor shall be paid or a notice of dispute sent within thirty (30) days after the Payment Request is received by the City.

In accordance with RCW 51.12.050, the City reserves the right to deduct from the payment any outstanding industrial insurance premiums owed by the Contractor or Subcontractors.

31. RETAINAGE

See Specification 1-09.9(1).

32. APPLICABLE LAW AND FORUM

The Awarded Contractor shall comply with all federal, state and local laws, rules, regulations applicable to its performance. The Contract shall be governed by and construed according to the laws of the State of Washington. Any suit arising from here shall be brought in King County Superior Court.

33. ADDITIONAL INFORMATION

The City encourages disadvantaged, minority and women-owned businesses to respond.

The City, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all respondents that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 23 will be afforded full opportunity to submit a proposal in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

PART 3

BID DOCUMENTS

BID SUBMITTAL CHECKLIST

1. REQUIRED FORMS

The Bidder shall submit the following forms as part of the proposal. The forms must be executed in full and submitted with the Proposal.

_____ **Bid Proposal**

_____ **Statement of Qualifications**

_____ **Bid Security Form**

_____ **Certification of Compliance with Wage Payment Statutes (RCW 39.04.350)**

The two lowest bidders shall submit the Responsible Bidder Information Form within 48 hours after the bid opening. Failure to submit these forms may result in the Contracting Agency refusal to accept the Bid.

_____ **Responsible Bidder Information Form**

Failure to submit all of the above items will result in the bid being non-responsive.

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

This Contract provides for the above listed project and other work, all in accordance with the Contract Plans, Contract Provisions, and the Standard Specifications.

All bidding and construction shall be performed in compliance with the Notice to Contractors, Bid Proposal, Plans, Specifications, and Contract for this project and any addenda issued thereto which are on file at the office of the City Clerk, City of Newcastle, Washington.

It is understood herein that after the date and hour set for the opening of bids, no Bidder may withdraw its Proposal, unless the award of the Contract is delayed for a period exceeding fifty (60) consecutive calendar days.

The undersigned has examined the site(s), local conditions, Addenda, Contract Provisions, Plans, and all applicable laws and ordinances covering the Work contemplated. In accordance with the terms, provisions, and requirements of the foregoing, all of their respective terms and conditions are incorporated herein by this reference and the following unit and lump sum prices are tendered as an offer to perform the Work and furnish the equipment, materials, appurtenances, and guarantees, complete in place, in good working order.

The undersigned freely states that it is familiar with the provisions of the competitive bidding statutes of the State of Washington, and specifically the provisions of RCW Chapter 9.18, and certifies that with respect to this Proposal, there has been no collusion or understanding with any other person, persons, or corporation, to prevent or eliminate full and unrestricted competition among Bidders on this Project.

The undersigned agrees that in the event of contract award, it shall employ only Contractors and Subcontractors duly licensed by the State of Washington and remain so at all times they are in any way involved with the Work.

The undersigned agrees that the Owner reserves the right to reject any or all bids and to waive any minor irregularities and informalities.

The undersigned hereby agrees that the Owner reserves the right to award the contract to

the lowest responsible, responsive bidder whose Proposal is in the best interest of the Owner. The Owner will determine at the time of award of the Project which additives, if any, will be included in the Contract.

The undersigned agrees that the Owner is authorized to obtain reports from all references included herein.

Subject to any extensions of the Contract time granted under the Contract, the undersigned agrees to substantially complete the Work required under this Contract within 110 working days from when Contract Time begins.

The undersigned is in, and will remain in, full compliance with all Washington State Department of Licensing requirements for contractors, including but not limited to requirements for bond, proof of insurance and annual registration fee. The undersigned's Washington State:

The undersigned waives any immunity granted under the State Industrial Insurance Law, RCW Title 51. This waiver has been specially negotiated by the parties, which is acknowledged by the undersigned in signing this Proposal.

By signing the proposal, the undersigned declares, under penalty of perjury under the laws of the United States and the State of Washington, that the following statements are true and correct:

1. That the undersigned person(s) or entity(ies) 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 Bid is submitted.

2. That by signing the signature page of this Bid, I am deemed to have signed and to have agreed to the provisions of this declaration.

The undersigned agrees that the Owner is authorized to obtain information from all references included herein.

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

Contractor Name:	
Address:	
City:	
Phone:	Fax:
E-mail:	
State of Incorporation or formation of business entity:	
Signatory Name:	
Signatory Title:	
Signature:	Date:

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

SCHEDULE OF PRICES

BID AWARD: Determination of low bidder will be made on the basis of the "Total Base Bid Price" Plus Additive 1 as budget allows. The below signed bidder acknowledges that bids must be submitted for the base bid and additive items. Partial bids will not be considered.

Preference 1: Base Bid plus Additive A
Preference 2: Base Bid

Having carefully examined all Contract Documents prepared by the City of Newcastle, the undersigned agrees to furnish all the labor, materials, equipment, superintendence, insurance and other accessories and services necessary to perform and complete all of the work required by and in strict accordance with the above contract documents and the implied intent thereof, for the following schedule of unit prices:

BASE BID: 500 FEET WEST OF 116TH AVENUE SE TO 121ST AVENUE SE

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
1.	Minor Change (1-04.4(1))	1	CALC	$20,000.00	$20,000.00
2.	Construction Surveying (1-05.4(2))	1	LS	$	$
3.	Record Drawings (Minimum Bid $1,000) (1-05.18)	1	LS	$	$
4.	SPCC Plan (1-07.15(1))	1	LS	$	$
5.	Mobilization (1-09.7)	1	LS	$	$
6.	Project Temporary Traffic Control (1-10.5)	1	LS	$	$
7.	Portable Changeable Message Sign (1-10.5)	2,040	HR	$	$
8.	Clearing and Grubbing (2-01.5)	1	LS	$	$
9.	Removal of Structures and Obstructions (2-02.5)	1	LS	$	$

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
10.	Excavation, Embankment and Grading, Incl. Haul (2-03.5)	640	CY	$	$
11.	Gravel Borrow, Incl. Haul (2-03.5)	1,550	TN	$	$
12.	Unsuitable Foundation Excavation, Incl. Haul (2-03.5)	20	CY	$	$
13.	Gravel Backfill for Walls (2-09.5)	200	TN	$	$
14.	Controlled Density Fill (2-09.5)	5	CY	$	$
15.	Locate Existing Utilities (2-09.5)	1	LS	$	$
16.	Pothole (2-09.5)	26	EA	$	$
17.	Crushed Surfacing Top Course (4-04.5)	1,170	TN	$	$
18.	HMA Cl. 1/2" PG 58H-22 (5-04.5)	390	TN	$	$
19.	Job Mix Compliance Price Adjustment (5-04.5)	1	CALC	$0.00	$0.00
20.	Compaction Price Adjustment (5-04.5)	1	CALC	$0.00	$0.00
21.	Furnish Soldier Pile – Wall C (6-16.5)	480	LF	$	$
22.	Lagging – Wall C (6-16.5)	1,280	SF	$	$
23.	CPEP Storm Sewer Pipe, 12 In. Diam. (7-04.5)	920	LF	$	$
24.	HDPE Storm Sewer Pipe, 12 In. O.D. (7-04.5)	95	LF	$	$
25.	Catch Basin, Type 1 (7-05.5)	11	EA	$	$

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
26.	Concrete Inlet (7-05.5)	4	EA	$	$
27.	Catch Basin, Type 2, 48 In. Diam. (7-05.5)	1	EA	$	$
28.	Catch Basin, Type 2, 48 In. Diam. with Pipe Anchor (7-05.5)	1	EA	$	$
29.	Bank Run Gravel for Trench Backfill (7-08.5)	430	TN	$	$
30.	Removal of Unsuitable Material (Trench) (7-08.5)	20	CY	$	$
31.	Trench Excavation Safety System (7-08.5)	1	LS	$	$
32.	Air and Vacuum Release Assembly (7-12.5)	1	EA	$	$
33.	Tapping Sleeve and Valve Assembly (7-12.5)	1	EA	$	$
34.	Adjust Valve Box (7-12.5)	7	EA	$	$
35.	Hydrant Assembly (7-14.5)	1	EA	$	$
36.	Resetting Existing Hydrant (7-14.5)	3	EA	$	$
37.	Replace Existing Water Service (7-15.5)	13	EA	$	$
38.	Erosion Control and Water Pollution Prevention (8-01.5)	1	LS	$	$
39.	Seeding, Fertilizing and Mulching (8-02.5)	450	SY	$	$
40.	Bark or Wood Chip Mulch (8-02.5)	30	CY	$	$
41.	Topsoil, Type A (8-02.5)	110	CY	$	$

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
42.	PSIPE Bearberry cotoneaster (Cotoneaster dammeri) (8-02.5)	800	EA	$	$
43.	Cement Concrete Traffic Curb and Gutter (8-04.5)	2,190	LF	$	$
44.	Cement Concrete Driveway Entrance (8-06.5)	320	SY	$	$
45.	Cement Concrete Driveway Repair (8-06.5)	280	SY	$	$
46.	Beam Guardrail, Type 31 (8-11.5)	160	LF	$	$
47.	Beam Guardrail, Type 31, Non-Flared Terminal (8-11.5)	2	EA	$	$
48.	Remove, Protect and Reinstall Wood Fence (8-12.5)	130	LF	$	$
49.	Chain Link Fence, Type 4 w/Vinyl Coating (8-12.5)	610	LF	$	$
50.	Cement Conc. Sidewalk (8-14.5)	820	SY	$	$
51.	Cement Conc. Curb Ramp (8-14.5)	13	EA	$	$
52.	Cement Conc. Stairs, Location A (8-14.5)	1	LS	$	$
53.	Hand Placed Riprap (8-15.5)	10	TN	$	$
54.	Lightweight Geosynthetic Fill (8-16.5)	200	CY	$	$
55.	Mailbox Support, Type 1 (8-18.5)	3	EA	$	$
56.	RRFB Unit, Complete (8-20.5)	1	EA	$	$

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
57.	Conduit Pipe, 2 In. Diam. (8-20.5)	4,400	LF	$	$
58.	Junction Box (8-20.5)	12	EA	$	$
59.	Permanent Signing (8-21.5)	1	LS	$	$
60.	Paint Line (8-22.5)	3,900	LF	$	$
61.	Plastic Stop Line (8-22.5)	60	LF	$	$
62.	Plastic Crosswalk Line (8-22.5)	430	SF	$	$
63.	Plastic Bicycle Lane Symbol (8-22.5)	7	EA	$	$
64.	Removing Paint Line (8-22.5)	2,800	LF	$	$
65.	Rock Wall (8-24.5)	80	SF	$	$
66.	Modular Block Wall (8-24.5)	1,500	SF	$	$
67.	Park Bench (8-26.5)	2	EA	$	$
				SUBTOTAL (BASE BID)	$
				WA State Sales Tax @ 0% (Per W.S. Revenue Rule 171)	$0.00
				TOTAL COST (BASE BID)	**$**

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

BID ADDITIVE A: CITY LIMITS TO 116TH AVENUE SE

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
101.	Minor Change (1-04.4(1))	1	CALC	$5,000.00	$5,000.00
102.	Construction Surveying (1-05.4(2))	1	LS	$	$
103.	Record Drawings (Minimum Bid $500) (1-5.18)	1	LS	$	$
104.	SPCC Plan (1-07.15(1))	1	LS	$	$
105.	Project Temporary Traffic Control (1-10.5)	1	LS	$	$
106.	Clearing and Grubbing (2-01.5)	1	LS	$	$
107.	Removal of Structures and Obstructions (2-02.5)	1	LS	$	$
108.	Excavation, Embankment and Grading, Incl. Haul (2-03.5)	310	CY	$	$
109.	Gravel Borrow, Incl. Haul (2-03.5)	550	TN	$	$
110.	Unsuitable Foundation Excavation, Incl. Haul (2-03.5)	20	CY	$	$
111.	Locate Existing Utilities (2-09.5)	1	LS	$	$
112.	Pothole (2-09.5)	13	EA	$	$
113.	Crushed Surfacing Top Course (4-04.5)	450	TN	$	$
114.	HMA Cl. 1/2" PG 58H-22 (5-04.5)	250	TN	$	$
115.	Job Mix Compliance Price Adjustment (5-04.5)	1	CALC	$	$

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
116.	Compaction Price Adjustment (5-04.5)	1	CALC	$	$
117.	CPEP Storm Sewer Pipe, 12 In. Diam. (7-04.5)	830	LF	$	$
118.	Catch Basin, Type 1 (7-05.5)	8	EA	$	$
119.	Bank Run Gravel for Trench Backfill (7-08.5)	390	TN	$	$
120.	Removal of Unsuitable Material (Trench) (7-08.5)	10	CY	$	$
121.	Trench Excavation Safety System (7-08.5)	1	LS	$	$
122.	Adjust Valve Box (7-12.5)	2	EA	$	$
123.	Resetting Existing Hydrant (7-14.5)	1	EA	$	$
124.	Erosion Control and Water Pollution Prevention (8-01.5)	1	LS	$	$
125.	Topsoil, Type A (8-02.5)	80	CY	$	$
126.	Seeding, Fertilizing and Mulching (8-02.5)	680	SY	$	$
127.	Beam Guardrail, Type 31 (8-11.5)	40	LF	$	$
128.	Beam Guardrail, Type 31, Non-Flared Terminal (8-11.5)	2	EA	$	$
129.	Mailbox Support, Type 1 (8-18.5)	1	EA	$	$
130.	Permanent Signing (8-21.5)	1	LS	$	$
131.	Paint Line (8-22.5)	6,200	LF	$	$
132.	Plastic Stop Line (8-22.5)	20	LF	$	$

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

ITEM No.	ITEM DESCRIPTION	EST. QTY	UNITS	UNIT PRICE	TOTAL AMOUNT
133.	Plastic Bicycle Lane Symbol (8-22.5)	11	EA	$	$
134.	Removing Paint Line (8-22.5)	4,500	LF	$	$
				SUBTOTAL (ADDITIVE A)	$
				WA State Sales Tax @ 0% (Per W.S. Revenue Rule 171)	$0.00
				TOTAL COST (ADDITIVE A)	**$**

Note: A bid must be received on all items.

BID SUMMARY

TOTAL COST (BASE BID)	$
TOTAL COST (ADDITIVE A)	$
TOTAL COST (BASE BID AND ADDITIVE A)	**$**

COMPANY NAME _____

BID PROPOSAL

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA

By signing below, Bidder acknowledges receipt and understanding of the following Addenda to the Contract Documents:

Addendum No.	Date of Receipt	Signature
1		
2		
3		

NOTE:
Failure to acknowledge receipt of Addenda may be considered as an irregularity in the Bid Proposal and the City reserves the right to determine whether the Bid will be disqualified.

STATEMENT OF BIDDER'S QUALIFICATIONS

Name of Firm: _____

Address: _____

Contact Person for this Project: _____

Telephone No._____

E-mail: _____

You may attached extra pages if necessary to answer these questions

1. Number of years the company has been in business under the present firm name as indicated above: _____
2. Gross dollar amount of work currently under contract: _____
3. Gross dollar amount of contracts currently not completed: _____
4. General character of work performed by firm: _____

_____

5. List five major pieces of equipment which are anticipated to be used on this project by the Contractor and note which items are owned by the Contractor and which are to be leased or rented from others:
   1. _____
   2. _____
   3. _____
   4. _____
   5. _____

6. List up to three (3) customer references for projects of a similar nature and size which have been completed by the bidder within the last seven (7) years:

Reference #1

Project Name / Agency-Owner	
Contact Name & Title	
Phone Number	
Year Completed	
Contract Amount	
Scope of project:	

Reference #2

Project Name / Agency-Owner	
Contact Name & Title	
Phone Number	
Year Completed	
Contract Amount	
Scope of project:	

Reference #3

Project Name / Agency-Owner	
Contact Name & Title	
Phone Number	
Year Completed	
Contract Amount	
Scope of project:	

7. Bank Reference: _____

8. How many general superintendents or other responsible employees in a supervisory position do you have at this time, and how long have they been with the firm?

_____

9. Identify who will be the general superintendent and/or project superintendent on this project and list the number of years each person identified has been with the firm.

_____

10. Have you changed bonding companies within the last three years? _____

    If yes, why? _____

Have you ever been sued or engaged in arbitration by the Owner or have you ever sued or demanded arbitration from an Owner of any public works contract for a special utility district, private utility company, municipality, county, or state government a party to a lawsuit or an arbitration proceeding in any way relating to a construction project?_____

If yes, for what reason? _____

_____

Disposition of case, if settled: _____

Bidder agrees that the Owner shall have the right to obtain credit reports.

Yes: _____ No: _____

The City may conduct reference checks for the bidder whose bid is under consideration for award for verification of bidder responsibility under mandatory and supplemental bidder responsibility under Part II (19) of the Contract Documents. The City may determine that the bidder is not a responsible bidder and may award to the next lowest bidder who meets the bidder qualification requirements. In conducting reference checks, the City may include itself or other government agencies and businesses as a reference even if the bidder did not identify these sources as a reference.

RESPONSIBLE BIDDER INFORMATION FORM

Contractor Name:	
Address:	
City:	
Phone:	Fax:
E-mail:	
UBI Number:	
Contractor Registration Number:	
Employment Security Department Number:	
State Excise Tax Registration Number:	
Are you disqualified from bidding under RCW 39.06.010 or 39.12.065(3)? ☐ Yes ☐ No	

1. Have you been disqualified from bidding on any public works contract(s)?

   ☐ Yes ☐ No *If yes, provide details:*

   _____

2. Have any of the projects you have completed in the last three (3) years had claims against the retainage and/or bonds?

   ☐ Yes ☐ No *If yes, list below:*

Project Name / Agency-Owner	Owner Reference Name and Phone No.	List claims filed against retainage and/or payment bond. Explain circumstances around each claim & ultimate resolution.

3. Has the bidder and/or its owners had any lawsuits with judgements entered against the Bidder in the last five (5) years?

   ☐ Yes ☐ No *If yes, provide details:*

   _____

4. Have you ever been sued or engaged in arbitration by the Owner or have you ever sued or demanded arbitration from an Owner of any public works contract for a special utility district, private utility company, municipality, county, or state government a party to a lawsuit or an arbitration proceeding in any way relating to a construction project?_____

   If yes, for what reason? _____

   Disposition of case, if settled: _____

5. Does the bidder owe any delinquent taxes to the Washington State Department of Revenue?

   ☐ Yes ☐ No *If yes, does the Bidder have an approved payment plan?* ☐ Yes ☐ No

6. Does the bidder have any prevailing wage violations as determined by Washington State Department of Labor & Industries in the past five (5) years?

   ☐ Yes ☐ No *If yes, provide a list of the violation(s), along with an explanation of each violation and how it was resolved.*

The undersigned certifies under penalty of perjury that the foregoing information is complete, true, and accurate to the best of his/her knowledge. The undersigned authorizes the City of Newcastle to verify all information contained herein (if this information is not complete and accurate, the bid may be considered non-responsive).

Signature of Bidder _____

Title _____ Date _____

BID BOND

KNOW ALL BY THESE PRESENTS, that we _____

_____

of _____Principal, and the

_____

(Name of Surety)

_____

(Address of Surety)

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 the CITY OF NEWCASTLE in the full and penal sum of five (5) percent of the total amount of the bid proposal of said principal for the work hereinafter described, for the payment of which, well and truly to be made, we bind our heirs, executors, administrators and assigns, and successors and assigns, firmly by these presents.

The condition of this bond is such, that whereas the principal herein is herewith submitting his or its sealed proposal for the following construction project, to wit:

SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS

said bid and proposal, by reference thereto, being made a part hereof.

NOW, THEREFORE, If the said proposal bid by said principal be accepted, and the contract be awarded to said principal, and if said principal shall duly make and enter into and execute said Contract and shall furnish bond as required by the CITY OF NEWCASTLE within a period of 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 remain and be in full force and effect.

IN TESTIMONY WHEREOF, The principal and surety have caused these presents to be signed and sealed this _____ day of _____, 20____.

By _____
Bidder

_____
Title

_____
Date

By _____
Surety

_____
Title

_____
Date

CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

I certify under penalty of perjury under the laws of the State of Washington that

_____

Bidder

is in compliance with the responsible bidder criteria requirement of RCW 39.04.350(1)(9) which provides:

Within the three year period immediately preceding the date of this solicitation*,

_____

Bidder

has not been determined by a final and binding citation and notice of assessment issued by the Washington State Dept. of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have knowingly and intentionally violated, as defined in RCW 49.48.082, any provision of RCW chapters 49.46, 49.48, or 49.52.

_____

Bidder Signature

_____

Printed Name

_____

Title

_____

Location of Place Executed (City, State)

_____

Date

*Definition: "Date of this solicitation" means the date of publication for formal bids, and the date of request for quotes or small works roster invitations.

PART 4

AWARD DOCUMENTS

SAMPLE CONTRACT
To be completed by low bidder

AGREEMENT

PUBLIC WORKS PROJECT

THIS AGREEMENT is entered into by and between the CITY OF NEWCASTLE (hereinafter called the Owner) and [CONTRACTOR] (hereinafter called the Contractor).

The Owner and the Contractor agree as follows:

ARTICLE 1. WORK.

This Project includes the construction of approximately 100 ft2 of rockery along south side of the 12100 block at SE 71st Pl. Items of work include, but not limited to clearing and grubbing, removal of unstable rockery section, excavation, rockery reconstruction and backfill material in addition to a rockery wall drainage connection along with other miscellaneous items as further shown, described and indicated in the Contract Provisions.

ARTICLE 2. CONTRACT TIME.

The Contractor shall complete the Work required by the Contract within [FIGURE] (NUMBER) working days.

ARTICLE 3. LIQUIDATED DAMAGES.

The Owner and the Contractor recognize that time is of the essence and that the Owner will suffer financial loss if the Work is not completed within the time, plus any extensions thereof, allowed in accordance with the Contract. They also recognize the inconvenience, expense, and difficulties involved in a legal proceeding to prove the actual loss suffered by the Owner if the Work is not completed within the time allowed in the Contract. Accordingly, the Owner and the Contractor agree that as liquidated damages for delay, and not as a penalty, the Contractor shall pay the Owner ($500.00) per day for each working day beyond the Substantial Completion Date that the Contractor achieves substantial completion of the Work and ($500.00) for each working day beyond the Physical Completion Date that the Contractor achieves physical completion of the Work.

ARTICLE 4. CONTRACT PRICE.

The Owner shall pay the Contractor the amount(s) set forth in the Proposal (in United States dollars) for completion of the Work in accordance with the Contract.

ARTICLE 5. CONTRACT.

The Contract, which comprises the entire agreement between the Owner and the Contractor concerning the Work, consists of the following:

- This Agreement;
- The Contractor's Proposal including the bid, bid schedule(s), information required of bidder, and all required certificates and affidavits;
- The Contract Provisions;
- The Plans (or drawings);
- Addenda, if any;
- Change Orders issued after the effective date of this Agreement.

There are no Contract Documents other than those listed in this Article 5. The Contract may be amended only in writing by Change Order as provided in the Contract.

ARTICLE 6. MISCELLANEOUS.

The Contractor specifically waives any immunity granted under the State Industrial Insurance Law, RCW Title 51, which is specifically acknowledged by the Contractor.
Contractor to initial: _____

The Contractor shall not assign any rights under or interests in the Contract, including but not limited to rights to payment, without the prior written consent of the Owner. Unless specifically stated in a written consent to an assignment, no assignment will release or discharge the Contractor-assignor from any duty or responsibility under the Contract.

The Contract is binding upon the Owner and the Contractor, and their respective partners, successors, assigns and legal representatives.

IN WITNESS WHEREOF, Owner and Contractor have caused this Agreement to be executed the day and year first above written.

CITY OF NEWCASTLE	CONTRACTOR
_____	_____
Robert Wyman City Manager	_____
	Name
	_____
ATTEST	Title
_____	
City Attorney	

PERFORMANCE BOND

KNOW ALL BY THESE PRESENTS: That whereas The City of Newcastle has awarded to ____ _____ hereinafter designated as the "Principal", a Contract for the _____ _____ project, all as hereto attached and made a part hereof, and whereas said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract;

NOW, THEREFORE, we the Principal, _____ and _____ a corporation, organized and existing under and by virtue of the Laws of the State of _____ duly authorized to do business in the State of Washington, as Surety, are held and firmly bound unto The City of Newcastle, for and in behalf of the _____ project, in the sum of _____ Dollars (_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by those presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bonded principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract, and shall faithfully perform all the provisions of such Contract and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereinafter be made, at the time and in the manner therein specified and shall pay all laborers, mechanics, subcontractors, material men and all persons who shall supply such person or persons, or subcontractors, with provisions and supplies for the carrying on of such work, on his or their part, and shall indemnify and save harmless The City of Newcastle, and their officers and agents; and shall further save harmless and indemnify said City from any defect or defects, in any of the workmanship entering into any part of the work or designated equipment covered by said Contract, which shall develop or be

discovered within two years after final acceptance of such work, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect, provided that the liability hereunder for defects in materials and workmanship for a period of two (2) years after the final acceptance of the work shall not exceed the sum of _____ _____, ($_____). (100% of the Contract Sum)

And the said Surety, for value received, hereby further stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the work to be performed thereunder or the Specifications accompanying the same shall in anyway affect its obligation on this Bond, and it does hereby waive notice of any change, extension of time, alterations or additions to the terms of the Contract or the work or to the Drawings or Specifications.

IN WITNESS WHEREOF, the said Principal and the said Surety have caused this Bond and three (3) counterparts thereof to be signed and sealed by their duly authorized officers this ____ day of _____, 20__.

TWO WITNESSES

_____

_____

Principal

By _____

_____

Title _____

_____

_____

ATTEST: (If Corporation)

_____

_____ Surety

CORPORATE SEAL

By _____

_____

By_____

Its _____

Title _____

_____

Address of local office and agent of
Surety Company is: _____

_____

By

_____ _____

_____ _____

Attorney for City of Newcastle

_____

_____

NOTE:Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

PAYMENT BOND

KNOW ALL BY THESE PRESENTS:

that _____
(Name of Contractor)

_____
(Address of Contractor)

a _____, (Corporation, Partnership or Individual), hereinafter called Principal,

and _____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto The City of Newcastle, hereinafter called Owner, in the penal sum of (100% of Contract Sum) _____ ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain Contract with the Owner, dated the _____ day of _____, 20__, a copy of which is hereto attached and made a part hereof for the construction of: _____ _____.

NOW, THEREFORE, if the Principal shall promptly make payments to all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor performed in such work, whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in anyway affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

PROVIDED, FURTHER, all such persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Contract shall have the right to sue in their own name on this Bond in its own name to recover for any loss, injury, damage or liability whatsoever sustained or incurred by them by reasons of any breach of the Contract Documents, or of any provisions in this Bond, in the same manner and to the same extent as though this obligation ran directly to the said persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Contract.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be deemed an original, this ____ day of _____, 20__.

ATTEST:

_____ _____
Principal

(Seal)

_____ By: _____
(Witness as to Principal)

_____ _____
(Address) Address

_____

ATTEST:

_____ By _____
(Surety) Secretary Attorney for City of Newcastle

(Seal)

_____ _____
(Witness to Surety) Surety

_____ _____
(Address) Attorney-in-Fact

_____ _____
Address

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

RETAINAGE INVESTMENT OPTION

Contractor: _____ Project Name: _____

Date: _____ Project Number: _____

Pursuant to RCW 60.28.010, as amended, you may exercise an option as to how retainage under this contract will be invested. Please complete and sign this form indication your preference. If you fail to do so, the City will deposit the funds in a Guarantee Deposit account, and you will miss the benefit of any interest earned. Select one of the following options:

☐ 1. **Savings Account:** Money will be placed in an interest-bearing account. The interest will be paid to you directly, rather than kept on deposit. If this is your choice, then please complete attached *SAVINGS ACCOUNT AGREEMENT*. Please state the name of your bank.

Bank:_____.

☐ 2. **Escrow/Investments:** The City will deliver retainage checks to a selected bank, pursuant to an escrow agreement. The bank will then invest the funds in securities or bonds selected by you, and interest will be paid to you as it accrues. If this is your choice then please complete attached *ESCROW AGREEMENT*.

Preferred Bank: _____

Securities/Bonds: _____

☐ 3. **Guarantee Deposit:** Retainage will be held by the City. No interest is payable to the Contractor

Retainage is normally released 45 days after final acceptance of the work, or following receipt of Labor and Industries/Department of Revenue clearance, whichever date is the later. Retainage on landscaping work may be longer, due to its seasonal nature.

State law allows for limited early release of retainage in certain circumstance.

_____
Contractor's Signature

_____
Title

SAMPLE CONTRACT FORMS
To be completed by low bidder

SAVING ACCOUNT AGREEMENT

TO BANK: _____ SAVINGS ACCOUNT NO: _____

BANK ADDRESS: _____

_____

AGENCY: CITY OF NEWCASTLE
12835 Newcastle Way; Suite 200, Newcastle, WA 98056

CONTRACT NO: _____

PROJECT TITLE: _____

The estimated completion date of contract is: _____

The undersigned, _____, herein referred to as the CONTRACTOR, has directed the CITY OF NEWCASTLE, Washington, hereinafter referred to as the AGENCY, to deliver to you its warrants which shall be payable to you and the CONTRACTOR jointly. Such warrants are to be held and disposed of by you in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

1. Warrants or checks made payable to you and the CONTRACTOR jointly upon delivery to you shall be endorsed by you and forwarded for collection. The moneys will then be placed by you in an interest-bearing savings account.

2. When and as interest on the savings account accrues and is paid, you shall collect such interest and forward it to the CONTRACTOR at its address designated below unless otherwise director by the CONTRACTOR.

3. You are not authorized to deliver to the CONTRACTOR all or any part of the principal held by you pursuant to this agreement, except in accordance with written instruction from the AGENCY. Compliance with such instructions shall relieve you of any further liability related thereto.

4. The CONTRACTOR agrees to pay you as compensation for your services hereunder as follows:

   Payment of all fees shall be the sole responsibility of the CONTRACTOR and shall not be deducted from any moneys placed with you pursuant to this agreement until and unl3ess the AGENCY directs the release to the CONTRACTOR, whereupon you shall be granted a first lien upon such moneys released and shall be entitled to reimburse yourself from such moneys for the entire amount of your fees as provided for herein above. In the event that

you are made a party to any litigation with respect to the moneys held by you hereunder, or in the event that the conditions of this agreement are not promptly fulfilled, or that you are required to render any service not provided for in these instructions, or that there is any assignment of the interests of this agreement, or any modification hereof, you shall be entitled to reasonable compensation for such extraordinary services for the CONTRACTOR and reimbursement form the CONTRACTOR for all costs and expenses, including attorney fees occasioned by such default, delay, controversy or litigation.

5. This agreement shall not be binding until executed by the CONTRACTOR and the AGENCY and accepted by you.

6. This instrument contains the entire agreement between you, the CONTRACTOR and the AGENCY. You are not a party to nor bound by any instrument or agreement other than this. You shall not be required to take notice of any default or any other matter nor be bound by nor required to give notice or demand, nor required to take any action whatever except as herein expressly provided. You shall not be liable for any loss or damage not caused by your own negligence or willful misconduct.

7. The foregoing provisions shall be binding upon the assigns, successors, personal representative and heir of the parties hereto.

_____	CITY OF NEWCASTLE_____
Contractor	*Agency*
BY:_____	BY:_____
Title: _____	Robert T. Wyman, City Manager
Date: _____	Date: _____
Address: _____	

The above savings account agreement and instruction received and accepted this _____ day of _____, 20___

_____

Bank Name

_____

Authorized Bank Officer

ESCROW AGREEMENT

TO BANK: _____ ESCROW NO.: _____

BANK ADDRESS: _____

_____

AGENCY: CITY OF NEWCASTLE
12835 Newcastle Way; Suite 200, Newcastle, WA 98056

CONTRACT NO: _____

PROJECT TITLE: _____

The estimated completion date of contract is: _____

The undersigned, _____, herein referred to as the CONTRACTOR, has directed the CITY OF NEWCASTLE, Washington, hereinafter referred to as the AGENCY, to deliver to you its warrants which shall be payable to you and the CONTRACTOR jointly. Such warrants are to be held and disposed of by you in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

1. Warrants or checks made payable to you and the CONTRACTOR jointly upon delivery to you shall be endorsed by you and forwarded for collection. The moneys will then be used by you to purchase, as directed by the CONTRACTOR, bonds or other securities chosen by the CONTRACTOR and approved by the AGENCY. Attached is a list of such bonds, or other securities approved by the AGENCY. Other bonds or securities, except stocks may be selected by the CONTRACTOR, subject to express written approval of the AGENCY. Purchase of such bonds or other securities shall be in a form which shall allow you alone to reconvert such bonds or other securities into money if you are required to do so by the AGENCY as provided in Paragraph 4 of this Escrow Agreement.

2. When and as interest on the securities held by you pursuant to this agreement accrues and is paid, you shall collect such interest and forward it to the CONTRACTOR at its address designated below unless otherwise directed by the CONTRACTOR.

3. You are not authorized to deliver to the CONTRACTOR all or any part of the securities held by you pursuant to this agreement (or any moneys derived from the sale of such securities, or the negotiation of the AGENCY'S warrants) except in accordance with written instructions from the AGENCY. Compliance with such instruction shall relieve you of any further liability related thereto.

4. In the event the AGENCY orders you to do so in writing, you shall within thirty-five (35) days of receipt of such order, reconvert into money the securities held by you pursuant to this agreement and return such money together with any other moneys held by you hereunder, to the AGENCY.

5. The CONTRACTOR agrees to pay you as compensation for your services hereunder as follows:

   Payment of all fees shall be the sole responsibility of the CONTRACTOR and shall not be deducted from any property placed with you pursuant to this agreement until and unless the AGENCY directs the release to the CONTRACTOR of the securities and moneys held hereunder whereupon you shall be granted a first lien upon such property released and shall be entitled to reimburse yourself from such property for the entire amount of your fees as provided for herein above. In the event that are made a party to any litigation with respect to the property held by you hereunder, or in the event that the conditions of this escrow are not promptly fulfilled or that you are required to render any service not provided for in these instructions, or that there is any assignment of the interest of this escrow or any modification hereof, you shall be entitled to reasonable compensation for such extraordinary services from the CONTRACTOR and reimbursement from the CONTRACTOR for all costs and expenses, including attorney fees occasioned by such default, delay, controversy or litigation.

6. This agreement shall not be binding until executed by the CONTRACTOR and the AGENCY and accepted by you.

7. This instrument contains the entire agreement between you, the CONTRACTOR and the AGENCY with respect to this escrow and you are not a party to nor bound by any instrument or agreement other than this; you shall not be required to take notice of any default or any other matter nor be bound by nor be bound by nor required to give notice or demand , nor required to take action whatever except as herein expressly provided; you shall not be liable for any loss or damage not caused by your own negligence or willful misconduct.

The foregone provision shall be binding upon the assigns, successors, personal representative and heir of the parties hereto.

_____	CITY OF NEWCASTLE
Contractor	*Agency*
By: _____	By: _____
Title: _____	Robert T. Wyman, City Manager
Date: _____	Date: _____
Address: _____	

The above escrow agreement and instruction received and accepted this _____ day of _____, 20___.

_____
Bank Name

_____
Authorized Bank Officer

SECURITIES AUTHORIZED BY AGENCY

1. Bills, certificates, notes or bonds of the United States;
2. Other obligations of the United States or its agencies;
3. Obligation of any corporation wholly-owned by the government of the United States;
4. Indebtedness of the Federal Nation Mortgage Association; and
5. Time deposits in commercial banks.

PART 5

SPECIAL PROVISIONS

TABLE OF CONTENTS

INTRODUCTION TO THE SPECIAL PROVISIONS

(December 10, 2020 APWA GSP)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, ***2022*** 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 the Amendments to the Standard Specifications and 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 project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

(January 4, 2016, APWA GSP)
(January 25, 2016, WSDOT GSP)
(February 1, 2017, CON GSP)

Also incorporated into the Contract Documents by reference are:

1. Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted edition, with Washington State modifications, if any
2. Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA, current edition
3. KING COUNTY Department of Transportation Road Services Division Road Design and Construction Standards, current edition
4. CITY OF NEWCASTLE Public Works Standards, Current Adopted edition

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

DESCRIPTION OF WORK

This contract provides for the construction of pedestrian and bicycle improvements on SE May Creek Park Drive from SE 86th Place to 121st Avenue SE. The Contract is separated into a Base Bid and a Bid Additive schedule. The Base Bid extends from a location approximately 500 feet west of 116th Avenue SE to 121st Avenue SE, approximately 2,200 feet. The Bid Additive extends from SE 86th Place to 116th Avenue SE, approximately 2,100 feet. Work includes, but is not limited to, excavation, grading, subgrade preparation, furnishing and installing gravel surfacing, hot mix asphalt, storm drainage improvements, cement concrete curbs, gutters, and sidewalks, retaining walls, permanent signing and pavement marking; miscellaneous surface restoration; traffic control; and other work all in accordance with the attached Contract Plans, these Special

Provisions and the Standard Specifications.

*** * IMPORTANT - PLEASE READ * ***

These Special Provisions *supplement,* add *new, replace , revise, or delete* the combined WSDOT Standard Specifications and Amendments. For clarification of the purpose of the sections provided, these Special Provisions have the following added section descriptors:

Supplement:	Adds language to the identified section of the Standard Specifications.
New:	Specification section/subsection is unique to this project and will not be found in the Standard Specifications.
Replace:	A replacement of the entire identified section or subsection of the Standard Specifications.
Revise:	A revision of the identified sentence, paragraph, or table of the Standard Specifications.
Delete:	A deletion of an entire section, subsection, or specified text of the Standard Specifications
{Date} WSDOT GSP:	A WSDOT General Special Provision
{Date} APWA GSP:	An APWA General Special Provision
{Date} CON GSP:	A City of Newcastle General Special Provision.
{Date} G&O GSP:	A Gray & Osborne, Inc. General Special Provision.

DIVISION 1
GENERAL REQUIREMENTS

SECTION 1-01, DEFINITIONS AND TERMS

1-01.3 Definitions

(January 4, 2016 APWA GSP) *Modification*

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

Dates

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

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

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

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

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

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

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

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

Supplement this Section with the following:

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

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

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

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

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

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

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

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

Contract Documents
See definition for “Contract”.

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

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

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

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

SECTION 1-02, BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

(January 24, 2011 APWA GSP) *Replacement*

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder
Before award of a public works contract, a bidder must meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project.

Add the following new section:

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

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

1-02.2 Plans and Specifications

(June 27, 2011 APWA GSP) *Replacement*

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")	0	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(2) Subsurface Information

(March 8, 2013 APWA GSP) *Modification*

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

> The Summary of Geotechnical Conditions and the boring logs, <u>if and when included</u> as an appendix to the Special Provisions, shall be considered as part of the Contract.

1-02.5 Proposal Forms

(July 31, 2017 APWA GSP) *Replacement*

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

(December 10, 2020 APWA GSP, Option B) *Modification*

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 UDBE 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 UDBE requirements are to be satisfied through such an agreement.

(June 1, 2020 CON GSP) *Supplement*

Supplement this section with the following:

Cumulative Additive/Deductive Bidding

This Bid Proposal requires the bidder to bid cumulative Additive and/or Deductive Work as part of the bid. The bidder is required to submit a Base Bid and a bid for each of the Additive and/or Deductive Bids listed.

Bid Proposal

The bid proposal is composed of the following parts:

1 . Base Bid

The base bid shall include constructing all items included in the Bid Proposal *except* those items contained in the Additive and/or Deductive Bid(s) listed.

2. Additive Bid(s)

Additive A: Includes providing all materials, equipment, and labor necessary in constructing Bid Additive A.

The bid items for Additive A are as listed in the bid proposal.

Bidding Procedures

To be considered responsive the bidder shall submit a price on each and every item of work included in the Base Bid and all Additive and Deductive Bids.

Award Procedures

The successful bidder will be the bidder submitting the lowest responsible bid for the preference, listed in the order below, as they best serve the public's interest. In any case, the award will be subject to the requirements of Section 1-03.

1. Preference 1: Lowest total for Base Bid plus Additive A.

2. Preference 2: Lowest total for Base Bid.

Award of the Additive Bid will be at the Contracting Agency's discretion as it best suits the public interest. In any case, the award will be subject to the requirements of Section 1-03.

Additional allowed working days, if any, for Additive Bid work are listed on the bid proposal sheets. If no additional days (or reduction) are listed, Contractor shall bid all work including Additive Bid work to be completed within the working days stated for the Base Bid work.

Add the following new section:

1-02.6(1) Recycled Materials Proposal

(January 4, 2016 APWA GSP) *New*

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

1-02.7 Bid Deposit

(March 8, 2013 APWA GSP) *Supplement*

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;

5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

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

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

1-02.9 Delivery of Proposal

(June 1, 2020 CON GSP) *Replacement*

Delete this section and replace it with the following:

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

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.

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) *Replacement*

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.

1-02.13 Irregular Proposals

(October 1, 2020 APWA GSP) *Replacement*

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
   a. The Bidder is not prequalified when so required;
   b. The authorized Proposal form furnished by the Contracting Agency is not used or is altered;
   c. The completed Proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
   d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
   e. A price per unit cannot be determined from the Bid Proposal;
   f. The Proposal form is not properly executed;
   g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
   h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
   i. The Bidder fails to submit written confirmation 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;
   j 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 was made;
   k. The Bidder fails to submit a DBE Bid Item Breakdown form, 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;
   l. The Bidder fails to submit DBE Trucking Credit Forms, 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;
   m. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
   n. More than one Proposal is submitted for the same project from a Bidder under the same or different names.

2. A Proposal may be considered irregular and may be rejected if:
   a. The Proposal does not include a unit price for every Bid item;

b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
c. Receipt of Addenda is not acknowledged;
d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
e. If Proposal form entries are not made in ink.

1-02.14 Disqualification of Bidders

(May 17, 2018 APWA GSP, Option B) *Replacement*

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria 1-7 listed in this Section.

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

1. **Delinquent State Taxes**

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

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

2. **Federal Debarment**

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

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

3. **Subcontractor Responsibility**

A Criterion: The Bidder’s standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and

the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder's subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also "responsible" subcontractors as defined by RCW 39.06.020.

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

4. **Claims Against Retainage and Bonds**

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

B. Documentation: The Bidder, if and when required as detailed below, shall submit a list of the public works projects completed in the three years prior to the bid submittal date that have had claims against retainage and bonds and include for each project the following information:

- Name of project
- The owner and contact information for the owner;
- A list of claims filed against the retainage and/or payment bond for any of the projects listed;
- A written explanation of the circumstances surrounding each claim and the ultimate resolution of the claim.

5. **Public Bidding Crime**

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

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

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

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

circumstances and such circumstances are deemed acceptable to the Contracting Agency.

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

7. **Lawsuits**

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

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

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

The basis for evaluation of Bidder compliance with these mandatory and supplemental criteria shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the Bidder has worked, or

other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

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

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

1-02.15 Pre Award Information

(August 14, 2013 APWA GSP) *Modification*

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.

SECTION 1-03, AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(January 23, 2006 APWA GSP) *Modification*

Revise the first paragraph to read:

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

1-03.3 Execution of Contract

(October 1, 2005 APWA GSP) *Modification*

Revise this section to read:

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

Within 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

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

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

1-03.4 Contract Bond

(February 1, 2017 CON GSP) *Replacement*

Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bonds each for the full contract amount. Each bond 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

(November 30, 2018 APWA GSP) *Modification*

Revise this section to read:

Any decision 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 <u>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</u>.

SECTION 1-04, SCOPE OF WORK

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

(December 10, 2020 APWA GSP) *Modification*

Revise the second paragraph to read:

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

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

1-04.4(1) Minor Changes

(May 30, 2019 APWA GSP) *Replacement*

Delete the first paragraph and replace it with the following:

Payments or credits for changes amounting to $10,000 or less may be made under the Bid item "Minor Change". At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All "Minor Change" work will be within the scope of the Contract Work and will not change Contract Time.

1-04.6 Variation in Estimated Quantities

(July 23, 2015 APWA GSP, Option B) *Modification*

Revise the first paragraph to read:

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original Proposal quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of any Contract item, adjusted to exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 25 percent from the original Proposal quantity, and if the total extended bid price for that item at time of award is equal to or greater than 10 percent of the total contract price at time of award. In that case, payment for contract work may be adjusted as described herein:

SECTION 1-05, CONTROL OF WORK

1-05.4 Conformity With and Deviations From Plans and Stakes

1-05.4(1) Construction Surveying – Roadway

(February 1, 2017 CON GSP) *New*

New Section:

Copies of the Contracting Agency provided primary survey control data are available for the bidder's inspection at the office of the Project Engineer.

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

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

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

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

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

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

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

3. Establish clearing limits, placing stakes at all angle points and at intermediate points not more than 50 feet apart. The clearing and grubbing limits shall generally be 1 foot beyond the toe of a fill and 1 foot beyond the top of a cut unless otherwise shown in the Plans.

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

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

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

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

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

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

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

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

To facilitate the establishment of these lines and elevations, the Contracting Agency will provide the Contractor with primary survey control information consisting of descriptions of two primary control points used for the horizontal and vertical control, and descriptions of two additional primary control points for every additional three miles of project length. Primary control points will be described by reference to the project alignment and the coordinate system and elevation datum utilized by the project. In addition, the Contracting Agency will supply horizontal coordinates for the

beginning and ending points and for each Point of Intersection (PI) on each alignment included in the project.

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

	Vertical	**Horizontal**
Slope Stakes	±0.1 foot	±0.10 foot
Subgrade grade stakes set 0.04 feet below grade	±0.01 foot	±0.5 foot (parallel to alignment) ±0.1 foot (normal to alignment)
Stationing on roadway	N/A	±0.1 foot
Alignment on roadway	N/A	±0.04 foot
Surfacing grade stakes	±0.01 foot	±0.5 foot (parallel to alignment) ±0.1 foot (normal to alignment)
Roadway paving pins for surfacing or paving	±0.01 foot	±0.2 foot (parallel to alignment) ±0.1 foot (normal to alignment)
Roadway Paving Pins for Surfacing or Paving	±0.01 foot	±0.1 foot (parallel to alignment) ±0.05 foot (normal to alignment)
Alignment of sanitary sewer and storm sewer structures	±0.01 foot	±0.1 foot
Walls	±0.01 foot	±0.04 foot
Curb and Gutter	±0.01 foot	±0.01 foot

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

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

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

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

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

1-05.4(2) Payment

(February 1, 2017 CON GSP) *New*

New Section:

Payment will be made in accordance with section 1-04.1 of the Standard Specifications for the following bid item when included in the bid proposal.

"Construction Surveying", lump sum.
The lump sum contract price for "Construction Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts. 25 percent of the total cost in the bid item for "Construction Surveying" will be applied to the Record Drawings and will be paid upon submittal and acceptance of the Record Drawings.

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP) *Supplement*

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) *Replacement*

1-05.11(1) Substantial Completion Date

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

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

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

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

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

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

the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

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

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

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

1-05.11(3) Operational Testing

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

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

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

1-05.12 Final Acceptance

Add the following new section:

1-05.12(1) One-Year Guarantee Period

(March 8, 2013 APWA GSP) *New*

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within one year after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency's written notice of a defect, and shall complete such work within the time stated in the Contracting Agency's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for one year after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

1-05.13 Superintendents, Labor and Equipment of Contractor

(August 14, 2013 APWA GSP) *Modification*

Delete the sixth and seventh paragraphs of this section.

1-05.14 Cooperation With Other Contractors

(March 13, 1995 WSDOT GSP) *Supplement*

Supplement this Section with the following:

Other Contracts or Other Work

It is anticipated that the following work adjacent to or within the limits of this project will be performed by others during the course of this project and will require coordination of the work:

PSE (power) will be adjusting/relocating their facilities.
Lumen will be adjusting/relocating their facilities.

1-05.15 Method of Serving Notices

(March 25, 2009 APWA GSP) *Modification*

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest,

notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

1-05.16 Water and Power

(October 1, 2005 APWA GSP) *New*

Add the following new section:

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.

1-05.18 Record Drawings

(February 1, 2017 CON GSP) *New*

Add the following new section:

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

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

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

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

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

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

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

	Vertical	Horizontal
As-built sanitary & storm invert and grate elevations	± 0.01 foot	± 0.01 foot
As-built monumentation	± 0.001 foot	± 0.001 foot
As-built waterlines, inverts, valves, hydrants	± 0.10 foot	± 0.10 foot
As-built ponds/swales/water features	± 0.10 foot	± 0.10 foot
As-built buildings (fin. Floor elev.)	± 0.01 foot	± 0.10 foot
As-built gas lines, power, TV, Tel, Com	± 0.10 foot	± 0.10 foot
As-built signs, signals, etc.	N/A	± 0.10 foot

Making Entries on the Record Drawings:

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

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

(******)
ADA Feature As-Built Measurements

The Contractor shall be responsible for providing as-built records of all ADA feature improvements completed in the Contract.

The survey work shall include, but not be limited to, completing the measurements, recording the required measurements and completing other data fill-ins found on the

ADA Measurement Forms, and transmitting the electronic forms to the Engineer. The ADA Measurement Forms are found at the following website location:

http://www.wsdot.wa.gov/Design/ADAGuidance.htm

In the instance where an ADA feature does not meet accessibility requirements, all work to replace non-conforming work and then to measure, record the as-built measurements, and transmit the electronic forms to the Engineer shall be completed at no additional cost to the Contracting Agency, as ordered by the Engineer.

Payment will be made for the following bid item:

Base Bid

Record Drawings (Minimum Bid $1,000)	Lump Sum

Bid Additive A

Record Drawings (Minimum Bid $500)	Lump Sum

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

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

1-05.19 Stockpiling of Materials and Construction Office

(February 1, 2017 CON GSP) *New*

Add the following new section:

This Contract does not provide for an onsite location for the Contractor to stockpile materials and/or a construction office (staging). If the Contractor requires staging on private property, it shall be the Contractor's responsibility to secure all private property rights for staging at the Contractor's expense. If approved by the City, City Right of Way may be utilized for location of staging. Contractor shall propose location, methods of securing the site, and site restoration to the City for consideration. Selected Right of Way locations shall not impede traffic at any time. The Contractor may utilize the construction work zone within the City's Right of Way for staging as long as such staging does not impede the normal flow of traffic outside that caused by construction activity associated with the work.

SECTION 1-06, CONTROL OF MATERIALS

1-06.1 Approval of Materials Prior to Use

(February 1, 2017 CON GSP) *Supplement*

This Section is supplemented with the following:

The Contractor shall be responsible for the accuracy and completeness of the information contained in each QPL and RAM submittal and shall ensure that all material, equipment or method of work shall be as described in the QPL and approved RAM. The Contractor shall verify that all features of all products conform to the requirements of the Contract and Plans. The Contractor shall ensure that there is no conflict with other submittals and specifically notify the Contracting Agency in each case where the Contractor's submittal may affect the work of another contractor or the Contracting Agency. The Contractor shall ensure coordination of submittals among the related crafts and subcontractors. If the Contractor proposes to provide material, equipment, or a method of work, which deviates from the Contract, the Contractor shall indicate so on the transmittal form accompanying the QPL and/or RAM submittals and submit a written request to the Engineer for approval of the proposed substitution.

Submittals required for the Work shall include any or all of the following, as required by the Contract:

a. Manufacturer's literature
b. Shop drawings
c. Material samples
d. Test reports

Timing of Product Submittals

All submittal information shall be sent to the Engineer through the Contractor.

All submittals shall be provided far enough in advance of installation to allow sufficient time for reviews and necessary approvals.

The Contractor shall allow at least 14 calendar days for the Engineer's review of all submittals.

Number of Submittals

The Contractor shall submit four (min.) copies of each QPL and RAM submittal. One (min.) copy will be returned to the Contractor and three (min.) will be retained by the Contracting Agency and Engineer. In lieu of submitting paper copies the Contractor may submit QPLs and RAMs electronically.

Resubmittals

When a submittal is resubmitted for any reason, it shall be resubmitted referencing the previous RAM # and the number of times it has been resubmitted (RAM # - times resubmitted).

Delays

All costs of delays caused by the failure of the Contractor to provide submittals in a timely manner will be borne by the Contractor.

Payment

The cost to prepare and submit submittals, equipment manuals, testing, and materials samples shall be included in the bid prices for various items associated with the required submittals.

1-06.1(2) Request for Approval of Material (RAM)

(February 1, 2017 CON GSP) *Supplement*

This Section is supplemented with the following:

Submittal Information

Shop, catalog, and other appropriate drawings shall be submitted to the Engineer for review prior to fabrication or ordering of all equipment or materials specified. Submittal documents shall be clearly edited to indicate only those items, models, or series of materials or equipment which are being submitted for review. All extraneous materials shall be crossed out or otherwise obliterated.

Shop drawings shall be submitted in the form of blue-line or black-line prints of each sheet. Blueprint submittals will not be acceptable.

All shop drawings shall be accurately drawn to a scale sufficiently large enough to show pertinent features and methods of connection or jointing. Figure dimensions shall be used on all shop drawings, as opposed to scaled dimensions.

All shop drawings shall bear the Contractor's certification that the Contractor has reviewed, checked, and approved the shop drawings.

1-06.2(1) Samples and Test for Acceptance

(February 1, 2017 CON GSP) *Supplement*

This Section is supplemented with the following:

The Contractor shall be responsible for all materials testing specified in the Contract Provisions. The materials testing laboratory shall be accredited for performing the various testing methods either by AASHTO R18, AASHTO 150/IEC 17025, or the American Association for Laboratory Accreditation and further approved by the Contracting Agency. Test methods shall be completed in accordance with the current WSDOT Standard Specifications and Construction Manual. The Engineer or the Inspector shall specify the items or areas to be tested. The materials testing laboratory shall send test results directly to the Contracting Agency. Any area that does not meet the material gradation and/or compaction test requirements shall be repaired/replaced at the Contractor’s expense. Areas that do not meet compaction test requirements shall be retested at the Contractor’s expense. Locations for testing and retesting shall be selected and marked by the Engineer.

The maximum density and optimum moisture content methods shall be in accordance with the Contract Provisions. The frequency and type of testing the Contractor shall provide is listed below:

Earthwork

Item	Test	Testing Frequency
Subgrades	In Place Density[3]	One test per lift per 2,500 sq. ft.
	Moisture Density Relationship (Modified Proctor)	One test and any time material type changes.
Embankments or Borrows	In Place Density[3]	One test per lift per 500 cubic yards placed

Aggregate Materials

Item	Test	Testing Frequency
Crushed Surfacing Top Course	Gradation, SE and Fracture	One per each material source.
	Density[1]	One test on every lift on material placed at a frequency of 250 square yards of completed area.
	Moisture Density Relationship (Modified Proctor)	One test and any time material type changes.
Gravel Backfill for Walls	Gradation and SE	One for each material source
	Density	One for every 100 feet of wall and every 2 feet in depth of material.

Hot Mix Asphalt

Item	Test	Testing Frequency
HMA	Rice Density, Gradation and	1 – 800 TN.[4]
	Compaction[1]	1 – 80 TN.

Hot Mix Asphalt Aggregate

Item	Test	Testing Frequency
Aggregate	SE, Fracture Uncompacted Void Content of Fine	1 – 1,600 TN.
Blend Sand	SE	1 - Project
Mineral Filler	Sp. G and PI	Certificate

(1) All acceptance tests shall be conducted from in-place samples.

(2) Additional tests shall be conducted when variations occur due to the Contractor's operations, weather conditions, site conditions, etc.

(3) All compaction shall be in accordance with the Compaction Control Test of Section 2-03.3(14)D. The nuclear densometer, if properly calibrated, may be used for the required testing frequency and procedures. The densometer shall be calibrated and is recommended for use when the time for complete results becomes critical.

(4) A minimum of three samples, on a random basis, shall be taken and tested.

Payment

All costs to prepare and implement the sample and testing program shall be included in the bid prices for the various items associated with the sample and testing program.

1-06.1(4) Fabrication Inspection Expense

(June 27, 2011 APWA GSP) *Deletion*

Delete this section in its entirety.

1-06.6 Recycled Materials

(January 4, 2016 APWA GSP) *Deletion*

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.

SECTION 1-07, LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

(October 1, 2005 APWA GSP) *Supplement*

This Section is supplemented with the following:

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

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

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

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

1-07.2 State Taxes

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

1-07.2 State Sales Tax

(June 27, 2011 APWA GSP) *Replacement*

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).

1-07.6 Permits and Licenses

(February 1, 2017 CON GSP) *Supplement*

Supplement this Section with the following:

The Contracting Agency has obtained the following permits for this Project

- None

All other permits, licenses, inspections, etc., which may be required, shall be obtained and paid for by the Contractor. The Contractor shall ensure that all necessary permits are obtained, and is responsible for reviewing all permits to become familiar with the requirements.

The Contractor and all subcontractors of any tier must obtain a City of Newcastle Business License (Contractor).

Other permits and licenses that the Contractor must obtain and comply with, as applicable, include, but are not limited to:

- None

The Contractor is cautioned to review all permits and other Contract Documents, and schedule the work activities appropriately to complete the work within the number of days stated in the Special Provisions. No additional compensation or extensions to time will be granted to the Contractor due to the time constraints imposed by such documents. The Contractor shall assume all responsibility for meeting all requirements of all permits.

Any fines or penalties incurred by Contracting Agency for not meeting state water quality standards and/or lack of stormwater pollution prevention on this Project shall be deducted from monies otherwise due to Contractor. Any fines assessed directly to Contractor shall be paid directly to the fining authority, at the Contractor's own cost.

1-07.9(5) Required Documents

(January 3, 2020 APWA GSP) *Replacement*

Delete this section and replace it with the following:

General

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

Intents and Affidavits

On forms provided by the Industrial Statistician of State L&I, the Contractor shall submit to the Engineer the following for themselves and for each firm covered under RCW 39.12 that will or has provided Work and materials for the Contract:

1. The approved “Statement of Intent to Pay Prevailing Wages” State L&I’s form number F700-029-000. The Contracting Agency will make no payment under this Contract until this statement has been approved by State L&I and reviewed by the Engineer.

2. The approved “Affidavit of Prevailing Wages Paid”, State L&I’s form number F700-007-000. The Contracting Agency will not grant Completion until all approved Affidavit of Wages paid for the Contractor and all Subcontractors have been received by the Engineer. The Contracting Agency will not release to the Contractor any funds retained under RCW 60.28.011 until “Affidavit of Prevailing Wages Paid” forms have been approved by State L&I and all of the approved forms have been submitted to the Engineer for every firm that worked on the Contract.

The Contractor is responsible for requesting these forms from State L&I and for paying any fees required by State L&I.

Certified Payrolls

Certified payrolls are required to be submitted by the Contractor for themselves, all Subcontractors and all lower tier subcontractors. The payrolls shall be submitted weekly on all Federal-aid projects and no less than monthly on State funded projects.

Penalties for Noncompliance

The Contractor is advised, if these payrolls are not supplied within the prescribed deadlines, any or all payments may be withheld until compliance is achieved. In addition, failure to provide these payrolls may result in other sanctions as provided by State laws (RCW 39.12.050) and/or Federal regulations (29 CFR 5.12).

1-07.16 Protection and Restoration of Property

1-07.16(1) Private/Public Property

(February 1, 2017 CON GSP) *Supplement*

Supplement this Section with the following:

The Contractor's work shall be confined to the Contracting Agency’s premises, including easements, rights of entry and construction permit limits. The Contractor shall not enter upon or place materials on other property except by written consent of the individual owners and shall hold Owner harmless from all suits and actions of every kind and description that might result from the Contractor’s use of property. The Contractor shall furnish, to the Owner, the written consent from the property owner(s) to use the property and a written release from the property owner(s) upon vacation of said property.

Contractor shall provide and maintain access to and from the Right of Way.

Contractor shall comply with all conditions of the project easements. Easement documents are located in the Appendices. Contractor shall indemnify Owner from claims on all easements and rights of entry. All other access rights outside the limits identified on the plans, will be the Contractor’s responsibility to negotiate and obtain at the Contractor’s expense.

Contractor shall restore all property within the temporary easements or rights of entry to its original condition or as indicated in the plans and specifications.

Only equipment with rubber tires or smooth tracks will be allowed on the finished roads or road surfaces which are not to be reconstructed as a part of this project. Tracks with cleats or other devices which damage the road surfacing will not be allowed. All outriggers shall be equipped with street pads.

Any additional costs due to delays or restrictions due to the construction within the Right-of-Way and furnishing access to adjacent property owners shall be considered incidental to the project, and shall also be merged in the respective unit and lump sum prices Bid.

1-07.16(1)A Garbage Service

(February 1, 2017 CON GSP) *New*

Add the following new section:

The Contractor shall be responsible for and coordinating with the respective agency for garbage pick-up. Services shall not be interrupted. If necessary, Contractor shall be responsible for moving private garbage cans to and from any temporary pick up location. Below is contact information for garbage service:

Waste Management
http://wmnorthwest.com/newcastle/index.html
(800) 592-9995

1-07.17 Utilities and Similar Facilities

(February 1, 2017 CON GSP) *New*

Supplement this section with the following:

Unless otherwise noted on the Plans, locations and dimensions shown in the Plans are for existing facilities in accordance with available information obtained without uncovering, measuring, or other verification. Other aboveground or underground facilities not shown on the Plans may be encountered during the course of the work.

The Contractor is warned that there may be utilities on the project that are not part of the One Number Locator Service system, this includes the City of Shoreline. The City of Newcastle maintains storm sewers within the City limits. The Contractor must contact utilities that are not part of the One Call system for locations.

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

The following utility companies known to have facilities within the project limits or will be adjusting, relocating, replacing or constructing utilities within the project limits are supplied for the Contractor's use:

Puget Sound Energy (Electric & Gas)
Andy Swayne
Andy.swayne@pse.com
(425) 462-3852

Comcast (Telecommunications)
Jim Brooke
Jim_brooke@cable.comcast.com
(253) 288-7535

Lumen (Telecommunications)
Narra Lan
Narra.Lan@centurylink.com
(253) 458-6537

Coal Creek Utility District (Water & Sewer)
Patrick Martin
patrick@ccud.org
(206) 255-1961

1-07.18 Public Liability and Property Damage Insurance

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

1-07.18 Insurance

(January 4, 2016 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:

1. the City of Newcastle and its officers, elected officials, employees, agents, and volunteers
2. Gray & Osborne, Inc.
3. PanGEO, Inc.

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.

1.07.23 Public Convenience and Safety

(February 1, 2017 CON GSP) *Supplement*

Supplement this section with the following:

The Contractor shall notify all property owners and tenants of street and alley closures, or other restrictions which may interfere with their access. Notification shall be at least 48 hours in advance of such restrictions. When an existing access is to be eliminated and replaced under the Contract by other access, the existing access shall not be closed until the replacement access is available.

All unattended excavations shall be properly covered, barricaded, or fenced. Any asphalt concrete pavement, crushed surfacing, gravel base, or water, required for maintaining traffic during the project, shall be placed by the Contractor immediately upon request by the Contracting Agency. Steel plates will be allowed if approved by Engineer, and must be secured and supported properly, pinned, shimmed, welded, and cold mix asphalt transitions added to prevent movement and provide smooth transitions.

The Contractor shall be responsible for controlling dust and mud within the project limits, and for cleaning all surfaced roadways affected by the Work. Contractor shall clean up on a daily basis all refuse, rubbish, scrap material and debris caused by the work, to the end that, at all times, the site of the work shall present a neat, orderly and workmanlike appearance. Flushing shall not be used. The costs for such dust and mud control and cleaning shall be incidental to the Contract, and no separate payment will be made. In the event Contractor fails to conform to these requirements, Owner shall have the right to have the work done by others and the cost shall be deducted from moneys otherwise due to Contractor.

The Contractor may request the Engineer to shut down a traffic signal with 48 hours advanced notice.

1-07.23(1) Construction Under Traffic

(February 1, 2017 CON GSP) *Supplement*

Supplement this section with the following:

The Contractor shall be responsible for proper notification to and coordination with all school districts, police and fire departments, U.S. mail, and all other persons or agencies which provide public service types of business (refuse, etc.) which will be affected by this project, and written notification shall be given at least one (1) week in advance of construction. It shall be the Contractor's responsibility to keep the school district and fire departments and others fully advised of his construction progress, any required detours, and also the time of completion of the project.

Work Zone Clear Zone

The Work Zone Clear Zone (WZCZ) applies during working and nonworking hours. The WZCZ applies only to temporary roadside objects introduced by the Contractor’s operations and does not apply to preexisting conditions or permanent Work. Those

work operations that are actively in progress shall be in accordance with adopted and approved Traffic Control Plans, and other contract requirements.

During nonworking hours equipment or materials shall not be within the WZCZ unless they are protected by permanent guardrail or temporary concrete barrier. The use of temporary concrete barrier shall be permitted only if the Engineer approves the installation and location.

During actual hours of work, unless protected as described above, only materials absolutely necessary to construction shall be within the WZCZ and only construction vehicles absolutely necessary to construction shall be allowed within the WZCZ or allowed to stop or park on the shoulder of the roadway.

The Contractor's nonessential vehicles and employees private vehicles shall not be permitted to park within the WZCZ at any time unless protected as described above. Deviation from the above requirements shall not occur unless the Contractor has requested the deviation in writing and the Engineer has provided written approval. Minimum WZCZ distances are measured from the edge of traveled way and will be determined as follows:

Minimum Work Zone Clear Zone Distance

Regulatory Posted Speed	Distance From Traveled Way (Feet)
35 mph or less	10 *
40 mph	15
45 to 55 mph	20
60 mph or greater	30
* or 2-feet beyond the outside edge of sidewalk	

(January 5, 2015 WSDOT GSP) *Supplement*

Lane closures are subject to the following restrictions.

4. Arterial streets: 9:00 a.m. to 3:30 p.m.
5. Residential Streets 7:00 a.m. to 5:00 p.m.

If the Engineer determines the permitted closure hours adversely affect traffic, the Engineer may adjust the hours accordingly. The Engineer will notify the Contractor in writing of any change in the closure hours.

Lane closures are not allowed on any of the following:

1. A holiday,

2. A holiday weekend; holidays that occur on Friday, Saturday, Sunday or Monday are considered a holiday weekend. A holiday weekend includes Saturday, Sunday, and the holiday, and

3. After 3:00 p.m. on the day prior to a holiday or holiday weekend

1-07.24 Rights of Way

(July 23, 2015 APWA GSP) *Replacement*

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.

SECTION 1-08, PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters

(May 25, 2006 APWA GSP) *New*

1-08.0(1) Preconstruction Conference

(October 10, 2008 APWA GSP) *New*

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.

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 48 hours prior to the day(s) the Contractor is requesting to change the hours.

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

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

1-08.1 Subcontracting

(May 30, 2019 APWA GSP, Option B) *Deletion*

Delete the ninth paragraph, beginning with "On all projects, the Contractor shall certify…".

1-08.3(2)A Type A Progress Schedule

(March 13, 2012 APWA GSP) *Modification*

Revise this section to read:

The Contractor shall submit 2 copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

1-08.3(3) Schedule Updates

(February 1, 2017 CON GSP) *Supplement*

Supplement this section with the following:

If the critical path is impacted, the Contractor shall update the complete project schedule once per month and shall submit the updated schedule no later than the progress payment period cut-off date.

1-08.4 Prosecution of Work

Delete this section and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work

(July 23, 2015 APWA GSP) *Modification*

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

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

1-08.5 Time for Completion

(August 14, 2013 APWA GSP, Option A) *Modification*

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and any partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

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

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
   a. Certified Payrolls (per Section 1-07.9(5)).
   b. Material Acceptance Certification Documents
   c. Quarterly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
   d. Final Contract Voucher Certification
   e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
   f. Property owner releases per Section 1-07.24

(February 1, 2017 CON GSP) *Supplement*

Supplement the last paragraph (documents list) with the following:

g. Receipt of signed property owner releases per Section 1-07.24 (if applicable)

1-08.9 Liquidated Damages
(March 3, 2021 APWA GSP, Option A)

Replace Section 1-08.9 with the following:

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

Accordingly, the Contractor agrees:

1. To pay liquidated damages in the amount of $500 for each working day beyond the number of working days established for Physical Completion, and

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

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract Work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date.

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

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

SECTION 1-09, MEASUREMENT AND PAYMENT

1-09.2(1) General Requirements for Weighing Equipment

(July 23, 2015 APWA GSP, Option 2) *Modification*

Revise item 4 of the fifth paragraph to read:

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

1-09.6 Force Account

(October 10, 2008 APWA GSP) *Supplement*

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

1-09.9 Payments

(March 13, 2012 APWA GSP) *Modification*

Delete the first four paragraphs and replace them with the following:

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

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

based on information available. The Project Engineer's determination of the cost of work shall be final.

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

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

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

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

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

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

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

(March 13, 2012 APWA GSP) *Supplement*

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.

1-09.11 Disputes and Claims

1-09.11(3) Time Limitation and Jurisdiction

(November 30, 2018 APWA GSP) *Revision*

Revise this section to read*:*

For the convenience of the parties to the Contract it is mutually agreed by the parties that any 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 any 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 any such claims or causes of action. It is further mutually agreed by the parties that when any 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 any records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13(3) Claims $250,000 or Less

(October 1, 2005 APWA GSP) *Replacement*

Delete this section and replace it with the following:

The Contractor and the Contracting Agency mutually agree that those claims that total $250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding ADR processes, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

1-09.13(3)A Administration of Arbitration

(November 30, 2018 APWA GSP) *Modification*

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 <u>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</u>. 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.

SECTION 1-10, TEMPORARY TRAFFIC CONTROL

1-10.1 General

(February 1, 2017 CON GSP) *Supplement*

Section 1-10.1 is supplemented with the following:

The Contractor shall conduct its operations so as to offer the least possible obstruction and inconvenience to the public, and the Contractor shall have under construction no greater length or amount of work than the Contractor can prosecute properly with due regards to the rights of the public. The Contractor shall not open up sections of the work and leave them unfinished, but rather, the work shall be finished as it proceeds, insofar as practicable.

Construction shall also be conducted so as to cause as little inconvenience as possible to abutting property owners. Convenient and clearly marked access to driveways, houses and buildings along the line of work shall be maintained and temporary approaches to crossing or intersecting streets shall be provided and kept in good and smooth condition. When the abutting owners' access across the Rights-of-Way line is to be replaced under the Contract by other access, the existing access shall not be closed until the replacement access facility is available. Adjacent property owner's driveways must be left open and accessible at all times during the course of the project unless otherwise specified herein or approved by the Contracting Agency.

1-10.2 Traffic Control Management

1-10.2(1) General

(January 3, 2017 WSDOT GSP) *Supplement*

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

Only training with WSDOT TCS card and WSDOT training curriculum is recognized in the State of Washington. The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778

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

1-10.2(2) Traffic Control Plans

(June 1, 2020 CON GSP) *Supplement*

Supplement this Section with the following:

Submittal of Contractor-prepared Traffic Control Plans (TCP's) shall be required, and shall occur a minimum of ten (10) working days prior to beginning work. The Contractor shall prepare site-specific plans for each site included in the project.

The Contractor shall be solely responsible for submitting the individual, site specific traffic control plans for approval by the Engineer. The costs for preparation of the TCP's shall be the contractor's responsibility and shall be included in the lump sum cost for Project Traffic Control. Traffic control plans require a minimum of 5 working days for review.

A TCP shall be submitted for each type of Work listed below. A revised or additional TCP shall be submitted for approval 10 days prior to each time an adjustment to a previously approved TCP becomes necessary.

1. TCP (Construction Access) - Any construction activity that requires the Contractor to enter and exit the construction site using a public road. This Plan shall address routes for hauling and delivery of project materials to and from the project site, and designated entrances and exits for personnel or construction vehicles for normal daily use.

2. TCP (Temporary Traffic Lane/Shoulder Closures) - Any activity requiring closures or adjustments to lanes, or Shoulders; driveway or pedestrian access; or entire Roadway.

3. TCP (Pedestrian Traffic Control) - Any Work that may impede or impact directly or indirectly any existing pedestrian route not related to 2) above.

4. TCP (Work near school zones and/or intersections) - Any construction activity that may impeded or impact directly any school zone and/or intersection.

Road closures are not included within this project, but the City will consider contractor requested road closures. For requested road closures, road closure plan including detours shall be submitted to the Engineer 10 working days prior to the required agency notification. If approved, 72-hour notification shall be given to the agencies noted on the City's Road Closure Notice prior to closure of any road. For closures on residential streets longer than an 8-hr period or on arterial streets, notice shall be placed in the local newspaper 72 hours prior to the closure and shall list the location, dates, and detour route. Approval for any road closure will be at the City's sole discretion.

END OF DIVISION 1

2-01 CLEARING, GRUBBING AND ROADSIDE CLEANUP

2-01.1 Description

(December 7, 2006 G&O GSP)

This Section is supplemented with the following:

Clearing and grubbing on this project shall be performed within the following limits:

Within the construction area along SE May Creek Park Drive, and within the right-of-way, utility easements, and construction easements where required. The area to be cleared and grubbed shall extend to 1 foot beyond the improvements (i.e., toe of fill, top of cut slope, fence, sidewalk, pavement removal area, pavement, curb, etc.) unless indicated otherwise on the Plans. The Contractor shall coordinate with the Engineer to protect and leave in place those trees, landscaping, or other items specifically identified to be saved. Where such is required, the Contractor shall flag those trees, shrubs, etc., to identify to his workforce their need to be saved.

Existing landscaping, including but not limited to, rockeries, beauty bark, decorative gravel or rock, bushes, trees, and shrubbery within and/or adjacent to the work areas shall be protected from damage and/or removed and/or relocated as indicated on the Plans. The Contractor shall provide protection, removal, temporary or permanent relocation, watering, staking, etc., as directed by the Engineer.

Unless indicated otherwise on the Plans, the property owners shall be allowed to remove and/or relocate trees, shrubs, irrigation, wood headers, ornamental plants, and any other decorative landscaping materials within the work areas that they wish to save. The Contractor shall notify both verbally and in writing (by certified mail) all abutting property owners and allow them a minimum of two weeks from the date the property owner is notified for the property owner to remove landscaping within the work area. The Contractor shall submit a checklist to the Contracting Agency verifying notification of property owners of landscaping relocation requirements. The Contractor shall remove and wastehaul all such items not removed by the property owner. Prior to the removal of the landscaping materials, the Contractor must receive approval from the Engineer to begin this work.

If the Contractor removes or damages any existing vegetation, landscaping item or private irrigation system not designated for removal because of any act, omission, neglect or misconduct in the execution of the work, such items shall be restored or replaced in kind by the Contractor to a condition similar or equal to that existing before such damage or removal occurred.

2-01.2 Disposal of Usable Material and Debris
(December 7, 2006 G&O GSP)

Delete the third paragraph of this Section and replace with the following:

> Refuse and debris shall be loaded and hauled to a waste site secured by the Contractor and shall be disposed of in such a manner as to meet all requirements of state, county, and municipal regulations regarding health, safety and public welfare.

2-01.2(1) Disposal Method No. 1 - Open Burning
(June 1, 2020 CON GSP)

Replace this Section with the following:

> Open burning will not be permitted on this project.

2-01.5 Payment
(March 6, 2016 G&O GSP)

This Section is supplemented with the following:

> The lump sum contract price for "Clearing and Grubbing" shall include all costs associated with furnishing all labor, materials, tools, and equipment for completion of clearing and grubbing as indicated on the Plans and specified herein including, but not limited to, clearing and grubbing, wastehaul, notification/coordination with property owners and Contracting Agency, protecting landscaping to remain, restoration/replacement of those items identified to be saved that are damaged by the Contractor, and landscaping relocations as indicated on the Plans and specified herein.

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.1 Description
(November 24, 2010 G&O GSP)

This Section is supplemented with the following:

> This work also consists of removing, handling and disposing of deleterious material or debris encountered during roadway, sidewalk, and trench excavation or other work as indicated on the Plans within the Project site, including, but not limited to, existing pipes, utility structures or appurtenances, riprap, buried concrete including thrust blocks, concrete footings and/or slabs, buried logs or debris, fences, landscaping items, rock walls, guardrail, signs and any and all other structures and obstructions (unless a separate bid item has been provided for this work). All salvageable items shall be removed and delivered to the Contracting Agency unless indicated otherwise on the Plans.

2-02.3 Construction Requirements

(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

The removal of any existing improvements shall be conducted in such a manner as not to damage utilities and any portion of the infrastructure that is to remain in place. Any deviation in this matter will obligate the Contractor at his own expense, to repair, replace or otherwise make proper restoration to the satisfaction of the Contracting Agency.

When sawing of concrete or combinations of materials is required, the depth of cut shall be as required to accomplish the intended purpose, without damaging surfaces to be left in place and will be determined in the field to the satisfaction of the Engineer.

Unless otherwise indicated on the Plans or in the Special Provisions, all structures, castings, pipe and other material of recoverable value removed from the Project site shall be carefully salvaged and delivered to the Owner of said utility items in good condition and in such order of salvage as the Engineer may direct. Materials and other items deemed of no value by the Engineer shall be promptly removed, loaded and wastehauled by the Contractor and becomes his property, to be disposed of at his discretion, in compliance with regulatory requirements.

Waste materials shall be loaded and hauled to a waste site secured by the Contractor and shall be disposed of in such a manner as to meet all requirements of state, county and municipal regulations regarding health, safety and public welfare.

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

(January 4, 2010 G&O GSP)

This Section is supplemented with the following:

Existing cement concrete sidewalks, roadway slabs, curbs, and curbs and gutters shall be removed at the nearest construction joint where possible, and removed and wastehauled as required for the construction of this Project. Where directed by the Engineer, cement concrete curbs or curb and gutter shall be saw-cut prior to removal. Existing pavement shall be precut before commencing excavation and shall be removed as required for the construction.

Where shown on the Plans or where directed in the field by the Engineer, the Contractor shall make a neat vertical saw-cut at the boundaries of the area to be removed. Care shall be taken during sawcutting so as to prevent damage to the existing asphalt concrete, or concrete, to remain in place. Any pavement or concrete damaged by the Contractor outside the area scheduled for removal due to the Contractor's operations or negligence shall be repaired or replaced to the Contracting Agency's satisfaction by the Contractor at no additional cost to the Contracting Agency.

All cuts shall be continuous, full depth, and shall be made with saws specifically equipped for this purpose. No skip cutting or jack hammering will be allowed unless specifically approved otherwise in writing by the Engineer.

Wheel cutting or jack hammering shall not be considered an acceptable means of pavement "cutting," unless pre-approved in writing by the Engineer. However, even if pre-approved as a method of cutting, no payment will be made for this type of work, and it shall be included in the various unit contract and lump sum prices listed in the Proposal.

The location of all pavement cuts shall be pre-approved by the Engineer in the field before cutting commences.

All water and slurry material resulting from sawcutting operations shall not be allowed to enter the storm drainage or sanitary sewer system and shall be removed from the site and disposed of in accordance with the Washington State Department of Ecology regulations.

2-02.5 Payment

(November 24, 2010 G&O GSP)

This Section is supplemented with the following:

All costs for sawcutting as indicated in the Plans and as may be additionally necessary to construct the Project shall be included in the unit contract and lump sum prices as listed in the Proposal. No additional or separate payment will be made for sawcutting.

The lump sum contract price for "Removal of Structures and Obstructions" shall be full compensation for furnishing all tools, labor, equipment, materials, and incidentals necessary for removing, loading, hauling, relocating, disposing of, and/or delivering items as noted herein and directed in the field by the Resident Inspector, to include but not limited to, fees and permits related to disposal.

2-03 ROADWAY EXCAVATION AND EMBANKMENT

2-03.1 Description

(March 17, 2016 G&O GSP)

This Section is supplemented with the following:

This work also includes wet weather and wet condition earthwork measures.

2-03.3 Construction Requirements
(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

The following items shall be followed if earthwork is to be performed in wet weather or in wet conditions:

5. Earthwork shall be performed in small sections to minimize exposure to wet weather. Excavation or the removal of unsuitable soil shall be followed immediately by the placement and compaction of a suitable thickness (generally eight inches or less) of clean structural fill. The size and/or type of construction equipment shall be selected as required to prevent soil disturbance. In some instances, it may be necessary to limit equipment size to minimize subgrade disturbance caused by equipment traffic.

6. During wet weather conditions, the allowable fines content of the gravel borrow shall be reduced to no more than 5 percent by weight based on the portion passing the 3/4-inch sieve. The sand equivalent shall be 50 percent minimum.

7. The ground surface in the construction area shall be graded to promote the rapid runoff of surface water and to prevent ponding of water.

8. No soil should be left uncompacted and exposed to moisture. A smooth drum vibratory roller, or equivalent, shall be used to seal the ground surface.

9. Excavation and placement of fill or backfill material will be observed by the Engineer, to determine that all work is being accomplished in accordance with the project specifications.

2-03.3(7)B Haul
(January 7, 2013 G&O GSP)

Delete this Section and replace it with the following:

There shall be no separate payment for haul of excess or unsuitable excavated material, or debris to the Contractor provided disposal site. The Contracting Agency is not providing a disposal site for this Project. All costs for haul shall be included in the bid prices for other work.

2-03.3(7)C Contractor-Provided Disposal Site
(January 7, 2013 G&O GSP)

Delete the first paragraph and replace it with the following:

The Contractor shall arrange for the disposal of the excess or unsuitable excavated material, or other materials at no expense to the Contracting Agency.

2-03.3(10) Selected Material
(May 5, 2016 G&O GSP)

Delete the second paragraph and insert the following in its place:

> **Direct Hauling.** If it is practical, the Contractor shall haul selected material immediately from the excavation to its final place on the Roadbed. The Contracting Agency will pay for such Work at the unit Contract price for "Excavation, Embankment and Grading, Incl. Haul."

Delete the fifth paragraph and insert the following in its place:

> There will be not additional payment for hauling, handling and stockpiling selected materials.

2-03.3(12) Overbreak

Delete the last sentence in this Section.

2-03.4 Measurement
(May 5, 2016 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

> Only one determination of the original ground elevation will be made on this project. Measurement for Excavation, Embankment and Grading, Incl. Haul will be based on the original ground elevations recorded previous to the award of this contract.
>
> If discrepancies are discovered in the ground elevations, which will materially affect the quantities of earthwork, the original computations of earthwork quantities will be adjusted accordingly.
>
> Earthwork quantities will be computed, either manually or by means of electronic data processing equipment, by use of the average end area method or by the finite element analysis method utilizing digital terrain modeling techniques.
>
> Copies of the original survey notes will be made available for the successful bidder's inspection if the Contract is awarded.
>
> Measurement for Excavation, Embankment and Grading, Incl. Haul will be per cubic yard of excavation to the "neat lines" shown on the Plans.
>
> Measurement of Gravel Borrow, Incl. Haul will be per ton.
>
> Measurement of Unsuitable Foundation Excavation, Incl. Haul will be per cubic yard, as field measured in the excavated area (not truck measurement).

2-03.5 Payment
(October 25, 2019 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1 for each of the following bid items that are included in the Proposal:

"Excavation, Embankment and Grading, Incl. Haul," per cubic yard.

The unit contract price per cubic yard for "Excavation, Embankment and Grading, Incl. Haul" shall be full pay for all materials, tools, labor, and equipment necessary for excavation to the grade lines shown including, but not limited to, haul, stockpiling, embankment construction with suitable excavated material, placing, shaping, and grading per Section 2-03, Subgrade Preparation per Section 2-06, Watering per Section 2-07, compacting, testing, loading, hauling to waste and disposing of all excess or unsuitable material, including logs, rocks, cobbles, etc. The unit contract price shall also include all costs required to uniformly grade and clean existing and/or new ditches to drain to existing and/or proposed drainage structures and the earthwork required for construction of driveways.

The unit contract price shall also include all costs required to remove and wastehaul existing asphalt and/or concrete pavement, sidewalks, curbs and gutters located within the "neat lines" shown.

In the event the Contractor overcuts a street, due to his oversight or error, the structural fill material (as approved by Contracting Agency) and compaction required to bring the roadway section back to subgrade elevation shall be furnished and accomplished at his sole expense, as no additional payment will be due the Contractor for this work.

Should solid rock be encountered, the excavation, removal and wastehaul will be paid by change order per Section 1-04.4. Boulders or broken rock less than 2 cubic yards in volume will not be classified as solid rock, nor will so called "hard-pan" or cemented gravel, even though it may be advantageous to use explosives in its removal.

"Gravel Borrow, Incl. Haul," per ton.

The unit contract price per ton for "Gravel Borrow, Incl. Haul" shall be full pay for all costs relative to furnishing, hauling, placing, shaping and compacting and testing the gravel borrow material, as indicated on the Plans, and as otherwise required and approved in the field by the Engineer.

"Unsuitable Foundation Excavation, Incl. Haul," per cubic yard.

In the event that the Engineer directs and authorizes the Contractor to excavate unsuitable material below design subgrade, then this additional excavation, to include excavating, loading, wastehauling and disposal of the material shall be measured and paid at the unit contract price per cubic yard for "Unsuitable Foundation Excavation, Incl. Haul."

2-04 HAUL

2-04.1 Description
(June 16, 2006 G&O GSP)

This Section is supplemented with the following:

If the sources of materials provided by the Contractor necessitates hauling over any public roads, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes. No separate monies will be due the Contractor for this work.

2-06 SUBGRADE PREPARATION

2-06.3(1) Subgrade for Surfacing
(June 16, 2006 G&O GSP)

This Section is supplemented with the following:

9. The grading shall be completed at least 300 feet ahead of the placing of gravel borrow or crushed surfacing base material.

2-07 WATERING

2-07.3 Construction Requirements
(November 24, 2010 G&O GSP)

This Section is supplemented with the following:

During construction, the Contractor shall have dedicated to the Project a suitable water truck that shall be operated as necessary to control dust. Failure to have a water truck immediately accessible to the job and failure to use a water truck for dust control shall be adequate reason for the Engineer to issue a suspension of work.

Water for this Project may be obtained from the Coal Creek Utility District (District). A hydrant permit will be required to be secured by the Contractor for any necessary water.

Water will be provided at the convenience of the District and shall be used sparingly and not wasted. The District reserves the right to control the location and use of water based on the District's own needs.

2-07.5 Payment
(May 5, 2016 G&O GSP)

This Section is supplemented with the following:

The cost for all water permit(s), and furnishing and placing water shall be included in the unit contract price for "Excavation, Embankment and Grading, Incl. Haul."

2-09 STRUCTURE EXCAVATION

2-09.1 Description

(******)

This Section is supplemented with the following:

This work also includes installing controlled density fill for trench backfill around catch basins and HDPE storm pipe connection, where noted on the plans.

2-09.3(1) General Requirements

(August 1, 2009 G&O GSP)

This Section is supplemented with the following:

When any Work is being considered by the Contractor in the vicinity of an existing utility, the Contractor shall so inform an authority of the particular utility in ample time so that the utility involved and the Contractor may take any precautions necessary to facilitate construction in the vicinity of the utility, and thereby protect that particular utility from damage.

Protecting and Maintaining Utility Service

The Contractor shall protect and maintain the operational service of existing utility systems in a continuous manner as possible. The Contractor shall have the approval from the Engineer and notification shall be given to the Contracting Agency before any disruptions of service in existing utilities will be allowed. The Contractor shall comply with all the conditions established by the Engineer and the Contracting Agency. The Contractor shall give the utility owner a minimum notice of 48 hours before disrupting any planned service interruption. No planned interruption to an existing system shall be allowed on Fridays, weekends, or holidays, unless specifically agreed to in writing by the Contracting Agency. Where services are to be shut down, affected parties shall be notified in writing by the Contractor (i.e., door hangers) at least 48 hours and not more than 72 hours in advance of the time and period of shut down. The Contractor shall make every effort to keep shut down schedules to periods of anticipated minimum usage and for the least period of time.

Where the construction crosses or is adjacent to existing utilities, the Contractor shall exercise extreme care to protect such utilities from damage. Additionally, the Contractor shall review the Plans, the project site and familiarize himself with the various utilities and plan his construction activities in recognition that the very close proximity of existing utilities to the proposed work will adversely affect production rates of installation of the various planned improvements. The Contractor is hereby advised and cautioned that the location of existing utilities will be cause for considerable and extreme care and due diligence on the part of the Contractor. As such, work production rates are anticipated to be significantly impacted by their presence and normal production rates should not be anticipated, during construction by the Contractor for work in these areas. The Contractor shall

anticipate minor alignment adjustments will also be required to accommodate the installation of utilities.

2-09.3(1)E Backfilling
(February 17, 2009 G&O GSP)

This Section is supplemented with the following:

Where existing and/or proposed ground contours prevent a minimum of 24 inches of cover above "flexible" storm pipe or where utility crossings necessitate, the Contracting Agency may direct the Contractor to install a controlled density fill encasement for the pipe. The encasement shall be constructed in accordance with the Plans and/or as directed in the field by the Contracting Agency. Material for encasement shall be controlled density fill per Section 2-09.3(1)E of the Standard Specifications. The pipe shall be securely held in place until the material has "set." Trenches located within roadways/drives shall be protected with H-20 steel plates, or Contracting Agency-approved equal, while the material sets.

2-09.3(5) Locating Utilities (New Section)
(March 3, 2011 G&O GSP)

A reasonable attempt has been made to locate known existing utilities; however, the exact location, and/or depth is unknown in most instances. It shall be the responsibility of the Contractor to locate existing utilities, to include their respective depths.

The Contractor shall provide field exploration through vacuum excavation, potholing or other suitable means to locate more precisely existing underground utilities as to location and depth. The Contractor shall decide on the difficulties to be encountered in constructing the project, and determine therefrom the extent of exploration required to expedite the construction to first prevent damage to those utilities, and secondly to determine if the new construction is to go around, over or under the existing utility. Where underground utilities are found to be in the way of construction, such condition shall not be deemed to be a changed or differing site condition, and if necessary, minor pipe alignment or grade will be modified at no additional cost to the Contracting Agency. At a minimum, potholing will be required at all utility interties prior to trench excavation for connections and at all major utility crossings, and potential conflicts noted by underground location notification as may be directed by the Engineer. See Contract Plans for additional specific locations.

2-09.4 Measurement
(March 3, 2011 G&O GSP)

This Section is supplemented with the following:

Measurement for gravel backfill for walls will be per ton.

Measurement for controlled density fill will be per cubic yard, measured in place.

Measurement for pothole will be each. A pothole is defined as an excavation that extends 24 inches to either side of the painted surface locates to a depth of 6 inches below the bottom elevation of the proposed utility pipe/conduit.

No specific unit of measurement shall apply to the lump sum item of locate existing utilities.

2-09.5 Payment

(March 3, 2011 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1 for each of the following bid items that are included in the Proposal.

"Gravel Backfill for Walls," per ton.

The unit contract price per ton for "Gravel Backfill for Walls" shall be full pay for furnishing all labor, tools, equipment, and materials to furnish and install the placement of the backfill material as indicated on the Plans and specified herein.

"Controlled Density Fill," per cubic yard.

The unit contract price per cubic yard for "Controlled Density Fill" shall be full pay for furnishing all labor, tools, equipment, and materials to furnish and install the placement of the controlled density fill as indicated on the Plans and specified herein including, but not limited to, pipe encasements, pipe plugging or trench backfill.

"Locate Existing Utilities," per lump sum.

The lump sum contract price for "Locate Existing Utilities" shall be full compensation for all costs incurred by the Contractor in performing the work. This bid item shall be paid proportionate to the installation of all utilities, complete and in place.

"Pothole," per each.

The unit contract price per each for "Pothole" shall be full compensation for all costs incurred by the Contractor in excavating, vactoring, measuring, recording depth of cover, type of material, diameter of pipe/conduit, recording station and offset of the pothole and submitting this information to the Contracting Agency, and backfilling pothole locations where shown on the Plans or directed by the Contracting Agency.

2-11 TRIMMING AND CLEANUP

2-11.1 Description

(June 1, 2020 CON GSP)

Supplement this Section with the following:

Paved street surfaces, existing and new shall be thoroughly swept with a vacuum street sweeper upon completion of work and shall require daily cleaning as necessary

to remove construction debris/materials. Contractor shall also be required to inspect daily, haul routes and, if necessary, street sweep to remove debris. Upon completion of the work, all haul routes shall be street swept.

2-11.4 Measurement

(June 1, 2020 CON GSP)

Replace this Section with the following:

No specific unit of measurement will be made for Trimming and Cleanup.

2-11.5 Payment

(June 1, 2020 CON GSP)

Replace this Section with the following:

Payment for Trimming and Cleanup work shall be considered included in the other bid items.

3-01 PRODUCTION FROM QUARRY AND PIT SITES

3-01.2 Material Sources, General Requirement

3-01.2(1) Approval of Source

(August 16, 2012 G&O GSP)

This Section is supplemented with the following:

The Contractor is responsible for all costs associated with approval of the material source.

4-04 BALLAST AND CRUSHED SURFACING

4-04.4 Measurement

(March 17, 2016 G&O GSP)

Delete the last sentence in this Section and replace with the following:

> No measurement will be made for water used in placing and compacting surfacing materials.

4-04.5 Payment

(March 17, 2016 G&O GSP)

This Section is supplemented with the following:

> The unit contract prices for the various types of ballast, structural fill, crushed surfacing base course, and crushed surfacing top course materials shall include all costs for obtaining the materials, hauling the materials to the site, stockpiling, spreading, grading, shaping, moisture conditioning, compacting, material and compaction testing, and all other incidentals, complete, in place. Asphalt grindings are not subject to reimbursement under any of these bid items.

5-04 HOT MIX ASPHALT

(December 29, 2021 G&O GSP)

Delete this entire section with the exception of 5-04.2(1), 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.

This work also consists of adjusting castings to grade, furnishing and installing temporary HMA per the details in the Contract Plans.

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	9-03.8(3)B
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21
Portland Cement	9-01
Sand 9-03.1(2).	
(As noted in 5-04.3(5)C for crack sealing)	
Joint Sealant	9-04.2
Foam Backer Rod	9-04.2(3)A

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. The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced and not less than ten samples per project. The asphalt content and gradation test data shall be reported to the Contracting Agency when submitting the mix design for approval on the QPL. The Contractor shall include the RAP as part of the mix design as defined in these Specifications.

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(2) Mix Design – Obtaining Project Approval

ESALs

The number of ESALs for the design and acceptance of the HMA shall be between 0.3 to <3 million.

Commercial HMA shall be an HMA Cl. 1/2" PG 58H-22 design mix.

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, 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:

a. The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.

b. 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.

7. 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:

c. 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).

d. 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 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.

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:

10. Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.

11. 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 degrees F	45 degrees F
0.10 to .20	45 degrees F	35 degrees F
More than 0.20	35 degrees F	35 degrees 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 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 degrees 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 degrees 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:

- Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
- Shall not be connected to the hauling vehicle or paver.
- May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
- Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
- 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 Treated Surfaces for HMA

A treated surface includes cement concrete, asphalt concrete, brick, seal coat, bituminous surface treatment and cement treated base. When the treated surface 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 treated 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 treated surfaces over which HMA is to be placed 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 treated surfaces on which any course of HMA is to be placed or abutted. Tack coat shall be uniformly applied to cover the treated surface 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

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks 1/4 inch in width and greater.

Cleaning: Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material when filling with crack sealant material. Use a hot compressed air lance to dry and warm the pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do not overheat pavement. Do not use direct flame dryers. Routing cracks is not required.

Sand Slurry: For cracks that are to be filled with sand slurry, thoroughly mix the components and pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off cracks that were not completely filled with additional sand slurry. Do not place the HMA overlay until the slurry has fully cured.

The sand slurry shall consist of approximately 20 percent CSS-1 emulsified asphalt, approximately 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). The components shall be thoroughly mixed and then poured into the cracks and joints until full. The following day, any cracks or joints that are not completely filled shall be topped off with additional sand slurry. After the sand slurry is placed, the filler shall be struck off flush with the existing pavement surface and allowed to cure. The HMA overlay shall not be placed until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland cement and sand used in the sand slurry.

In areas where HMA will be placed, use sand slurry to fill the cracks.

In areas where HMA will not be placed, fill the cracks as follows:

1. Cracks 1/4 inch to 1 inch in width – fill with hot pressure fed sealant.

2. Cracks greater than 1 inch in width – fill with sand slurry.

Hot Pressure Fed Sealant: For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product information and recommendations to the Engineer prior to the start of work, including the manufacturer's recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor's method of sealing the cracks with hot pressure fed sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material. Pouring sealant is not an acceptable method.

5-04.3(4)A2 Crack Sealing Areas Prior to Paving

In areas where HMA will be placed, use sand slurry to fill the cracks.

5-04.3(4)A3 Crack Sealing Areas Not to be Paved

In areas where HMA will not be placed, fill the cracks as follows:

8-20 Cracks 1/4 inch to 1 inch in width - fill with hot pressure fed sealant.

8-21 Cracks greater than 1 inch in width – fill with sand slurry.

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 degrees 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 3/4" and HMA Class 1/2" wearing course	0.30 feet
other courses	0.35 feet
HMA Class 3/8"	0.15 feet

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

When more than one job mix formula (JMF) is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

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

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

5-04.3(9) HMA Mixture Acceptance

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

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

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

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

HMA Tolerances and Adjustments

9. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall conform to the following tolerances:

Aggregate Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", 3/4", 1/2", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-6%	+/- 8%
No. 8 Sieve	+/- 6%	+/-8%
No. 200 sieve	+/- 2.0%	+/- 3.0%
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

These tolerance limits constitute the allowable limits as described in Section 1-06.2. The tolerance limit for aggregate shall not exceed the limits of the control points, except the tolerance limits for sieves designated as 100 percent passing will be 99-100.

11. **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 1-1/2", 1", 3/4", 1/2", 3/8", 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.

The Contractor will furnish the Engineer with a copy of the results of all acceptance testing performed in the field. The Engineer will provide the Composite Pay Factor

(CPF) of the completed sublots after three sublots have been tested. Sublot sample test results (gradation and asphalt binder content) may be challenged by the Contractor.

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 JMF 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 1,200 tons.

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

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

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with 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 to 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:

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

2. If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

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

Testing of HMA for compliance of Va will at the option of the Contracting Agency. If tested, compliance of Va 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.

The Contractor will furnish the Engineer with a copy of the results of all acceptance testing performed in the field.

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 Composite Pay Factor (CPF) using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	**Factor "f"**
All aggregate passing: 1-1/2", 1", 3/4", 1/2", 3/8" 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 Composite Pay Factor (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, Va. 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 Composite Pay Factor (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 Composite Pay Factor (CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a 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.

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.

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

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

Test Results

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

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

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

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

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

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

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733. A $500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

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

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

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance, with a maximum of 15 sublots per lot; the final lot for a mix design may be increased to 25 sublots. Sublots will be uniform in size with a maximum sublot size based on original Plan quantity tons of HMA as specified in

the table below. 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 Original Plan Quantity (tons)	Sublot Size (tons)
<20,000	100
20,000 to 30,000	150
>30,000	200

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 non-statistically evaluated as an independent lot in accordance with Section 5-04.3(9)C4.

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 5-04.3(9)C4.

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 Composite Pay Factor (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

5-04.3(12)B1 HMA Sawcut and Seal

Prior to placing HMA on the bridge deck, establish sawcut alignment points at both ends of the bridge paving joint seals to be placed at the bridge ends, and at interior joints within the bridge deck when and where shown in the Plans. Establish the sawcut alignment points in a manner that they remain functional for use in aligning the sawcut after placing the overlay.

Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.

Construct the bridge paving joint seal as specified ion the Plans and in accordance with the detail shown in the Standard Plans. Construct the sawcut in accordance with the detail shown in the Standard Plan. Construct the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's application procedure.

5-04.3(12)B2 Paved Panel Joint Seal

Construct the paved panel joint seal in accordance with the requirements specified in section 5-04.3(12)B1 and the following requirement:

- Clean and seal the existing joint between concrete panels in accordance with Section 5-01.3(8) and the details shown in the Standard Plans.

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 of the following sections of Roadway shall not vary more than 1/4 inch from the lower edge of a 10-foot straightedge placed on the surface parallel to centerline:

- roads less than 45 mph

The completed surface of the wearing course of all other sections of Roadway shall not vary more than 1/8 inch from the lower edge of a 10-foot straightedge placed on the surface parallel to centerline.

The transverse slope of the completed surface of the wearing course shall vary not more than 1/4 inch in 10 feet from the rate of transverse slope shown in the Plans.

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

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

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

3. By other method approved by the Engineer.

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

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

All utility castings and monuments within the existing and/or new pavement area shall be referenced by the Contractor prior to any pavement removal or planing. The Contractor shall keep a record of such references, and submit a copy to the Contracting Agency.

Existing structures and new structures shall be adjusted to the finished grade as shown on the Plans and as further specified herein. Existing boxes, rings, grates, covers, and lids shall be reset in a careful and workmanlike manner to conform to the required grades.

The new and existing utility castings and monuments shall be adjusted to grade in the following manner:

As soon as the street has been paved past each structure or casting, the asphalt concrete mat shall be scored around the location of the structure or casting. After rolling has been completed and the mat has cooled, it shall be cut along the scored lines. The structure or casting shall then be raised to finished pavement grade and the annular spaces filled as indicated on the Plans. The Contractor shall install the pavement to give a smooth finished appearance. All covers, lids, frames, and grates shall be thoroughly cleaned.

After pavement is in place, all new pavement joints shall be sealed with a 6-inch-wide strip of hot asphalt sealer. A sand blanket shall be applied to the surface of the hot asphalt sealer immediately after the placement of the sealer to help

alleviate the tracking of the asphalt. The sealer shall meet the requirements of Section 9-04.2(1) of the Standard Specifications.

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

    2. 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).

    3. 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.

    4. 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.

    5. 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.

    6. 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.

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

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

9. Roadways Open to Traffic

When the roadway being paved is open to traffic, the following requirements shall apply:

The Contractor shall keep roadways open to traffic at all times except where paving is in progress. During such time, and provided that there has been an advance warning to the public, only that specified section of road being paved may be closed for the minimum time required to place and compact the HMA. Adjacent travel lanes and shoulder shall be left open for traffic during these times. 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 temporarily closing a portion of the road, advance-warning signs shall be placed and signs shall also be placed clearly alerting the driver of temporary lane closures.

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 and shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements shall be included in the unit contract prices for the various bid items involved in the Contract.

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 blocked or when allowed to be 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:

10. 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.

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

12. 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.

13. Names and locations of HMA Supplier facilities to be used.

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

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

16. Description (geometric or narrative) of the scheduled sequence of planing and of paving, and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.

17. Names, job titles, and contact information for field, office, and plant supervisory personnel.

18. A copy of the approved Mix Designs.

19. Tonnage of HMA to be placed each day.

20. 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:

- General for both Paving Plan and for Planing Plan:
    - The actual times of starting and ending daily operations.
    - In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
    - The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, to public convenience and safety, and to other contractors who may operate in the Project Site.
    - Notifications required of Contractor activities, and coordinating with other entities and the public as necessary.
    - Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and to paving.
    - Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed.
    - Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, see Section 5-04.3(14)B2.
    - Description of how flaggers will be coordinated with the planing, paving, and related operations.
    - Description of sequencing of traffic controls for the process of rigid pavement base repairs.
    - Other items the Engineer deems necessary to address.
- Paving – additional topics:

    20. When to start applying tack and coordinating with paving.

    21. Types of equipment and numbers of each type 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 equipment as it relates to meeting Specification requirements.

22. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are distinguished if more than one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.

23. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.

24. 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

HMA approaches shall be constructed at the locations shown in the Plans or where staked by the Engineer. The Work shall be performed in accordance with Section 5-04.

5-04.4 Measurement

HMA Cl. ___ PG ___ 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.

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.

The unit contract price per ton for "HMA Cl. ____ PG ____" shall include the cost for all labor, materials, equipment and tools for furnishing, placing, compacting and constructing asphalt pavement including mix design, anti-strip determination, mix design verification, preparation of untreated roadway, preparation of treated surfaces, sweeping, removing plastic traffic marking, removing RPMs, removing

permanent striping, anti-stripping additive, soil residual herbicide, asphalt for tack coat, HMA pavement, HMA for preleveling, HMA transition sections, HMA ramps, HMA driveways/approaches, HMA wedge curb, spreading and finishing, water, compaction, sealing all cold joints with asphalt sealant (and sand blanket to alleviate tracking), temporary pavement markings, removal of temporary pavement markings, material and compaction testing, and all other incidentals necessary for a complete paving system to the lines, cross section and grades in accordance with the Plans. It shall also include the cost of adjusting all existing and new Contracting Agency owned castings including, but not limited to, manholes, catch basins, junction boxes, monuments, and valve boxes to grade unless a specific bid item has been listed in the proposal for this work.

The unit contract price per ton for "HMA Cl. ____ PG ____" shall be full compensation for all costs incurred to carry out the requirements of Section 5-04 except for those costs which are included in other items which are included in this Subsection and which are included in the Proposal.

"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.

6-16 SOLDIER PILE AND SOLDIER PILE TIEBACK WALLS

6-16.1 Description

(******)

Delete this Section and replace it with the following:

This Work consists of constructing soldier pile walls, concrete and temporary casing in augured holes. Piles for soldier pile walls shall not be driven.

This Work also includes cutting off or building up piles in the case of incorrect pile placement. In furnishing and placing piles, casing and concrete, the Contractor shall comply with the requirements of this section, the Contract, and the direction of the Engineer.

6-16.2 Materials

(******)

This Section is supplemented with the following:

Concrete Casing for Soldier Piles

- Cementitious material content shall not be less than 188 pounds per cubic yard with minimum 28 days strength of 1,000 psi. Cementitious material shall be Portland cement, a blended hydraulic cement, or a combination of Portland cement and fly ash.

- Portland cement shall conform to Section 9-01 of the Standard Specifications. Fly ash shall conform to Section 9-23.9 of the Standard Specifications. Blended hydraulic cement shall comply with ASTM C595-83 Type 1P (MS).

- Aggregates shall be in accordance with Section 9-03.1 of the Standard Specifications, except the coarse aggregate may be 3/8-inch minus.

- Slump for lean concrete shall range between 6 to 8 inches.

Admixtures shall be from approved sources and shall be used in accordance with the manufacturer's recommendations.

The Contractor shall submit the lean concrete mix design and method of placing the lean concrete to the Project Engineer for review.

6-16.3 Construction Requirements

6-16.3(1) Quality Assurance

(******)

This Section is supplemented with the following:

Contractor shall maintain complete and accurate record drawings per Section 1-05.18, which indicate the pile number, location, depth and date installed. Contractor shall record and report immediately to the Contracting Agency any unusual conditions encountered during pile installation.

The Contractor shall periodically check the axial alignment of each pile during the pile installation operation and after reaching required tip elevation. Installed piles which are damaged, mislocated, or out of alignment beyond the maximum tolerance specified or which are unsuitable for other reasons shall be abandoned and replaced with additional piles at no additional cost to the Contracting Agency.

The Contractor shall not leave any piles partially completed overnight. The Contractor shall completely install soldier piles and protect at the end of each workday.

The pile installer shall be regularly engaged in the installation of soldier piles similar to the requirements of this project for at least five years. Contractor shall provide the Contracting Agency with documentation demonstrating same.

Design deviations shall provide an installation equivalent to the basic intent without incurring additional cost to the Contracting Agency. Any proposed design deviations shall be reviewed and accepted by the Engineer prior to installation.

Contractor shall have materials delivered to site at such intervals to ensure uninterrupted progress of work.

Contractor shall store materials in such as manner to permit easy access for inspection and identification. Contractor shall keep steel members off of the ground, using pallets, platforms, or other supports. Contractor shall protect steel members and packaged materials from erosion and deterioration.

Contractor shall not store materials on structure in a manner that may cause distortion of damage to members or supporting structures. Contractor shall repair or replace damaged materials or structures as directed.

The top elevation of the pile shall be not more than 1 inch above nor 1 inch below the elevation shown. The diameter of the stem of the drilled pile shall be no smaller than the dimension shown.

If the drilled shafts are completed in excess of the tolerances specified, the Contractor shall backfill with lean concrete, allow concrete to set and redrill the shaft.

At the Contractor's option, drilled piles with diameters larger than those shown may be constructed subject to adjacent space limitations at no additional cost to the Contracting Agency, if prior written approval is obtained from the Engineer.

6-16.3(2) Submittals

(******)

This Section is supplemented with the following:

The Contractor shall submit the following for review.

Concrete Mix Design

Submit mix design for proposed mix indicating components and proportions by weight, including any admixtures. Mix design shall state chloride content.

Certified Test Reports

Submit test results indicating compressive strength of concrete in compliance with requirements herein and ACI 301.

Sieve Analysis

Submit sieve analysis for proposed coarse and fine aggregates indicating components, source, and gradation.

Product and Manufacturer's Data

Provide data on proposed admixtures. Product data shall expressly state admixtures are chloride free; or the manufacturer shall submit a letter certifying same.

Shop Drawings

Indicate profiles, sizes, spacing, locations, and complete details of structural members, to include openings, cuts, camber, fasteners, connections, and other pertinent data. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths. Provide setting drawings, templates, and directions for installation of anchor bolts and other anchorages to be installed as work of other sections.

Manufacturer's Mill Certificate

Submit certifying that products meet or exceed specified requirements. Submit Manufacturer's Certificates, indicating structural strength, destructive and non-destructive test analysis.

Welders' Certificates

Submit Certificates, certifying welders employed on the Work, verifying AWS qualifications within the previous 12 months.

6-16.3(3) Shaft Excavation

(******)

This Section is supplemented with the following:

When unexpected obstructions, which require specialized equipment or labor, are encountered the Contractor shall notify the Engineer promptly and the obstruction shall be removed and the excavation continued as directed by the Engineer. Removal of unexpected obstructions will be paid for by force account in accordance with Section 1-09.6 of the Standard Specifications.

The Contractor shall use a specially built cleanout bucket, to clean the bottom of the excavation such that not more than 2 inches of loose or disturbed material is present. The Contractor is responsible for the disposal of augured material per Section 6-16.5. The excavated shaft shall be inspected and approved by the Engineer prior to proceeding with construction.

During drilled pile excavation or upon completed of the drilled pile excavation, the Contractor shall dewater the hole. The Contractor shall maintain the shaft in this dewatered condition until placement of concrete is complete, except by approval of the Engineer.

Excavation of shaft shall not commence until a minimum of 12 hours after the concrete for the adjacent shafts has been poured.

Inspection: Immediately upon completion of the drilled pile excavation and dewatering, notify the Engineer that the pile excavation is ready for inspection. Following inspection by the Engineer, construct the drilled pile without undue delay. Maintain pile in dewatered condition until placement of concrete is complete.

The Contractor shall have available at all times a suitable light for inspection of the drilled pile excavation throughout its entire length. The Contractor shall also have available at all times a plumb weight and tape to check the vertical alignment and depth of each drilled shaft excavation. All excavation that is not within the tolerance specified shall be corrected or replaced at the Contractor's expense. The pile excavation must be inspected and approved by the Engineer before soldier piles and concrete are placed in the excavation.

Temporary Casing

The pile excavation shall be cased if required to prevent caving and sloughing of materials. The bottom of the casing shall be advanced closely with the excavation as the excavation proceeds. The temporary casing shall be steel and shall be of ample strength to withstand handling stresses, the pressure of concrete, hydrostatic pressure, the stresses caused by surrounding earth or backfill material, and shall be watertight. The casing shall be smooth, clean, and well oiled. The outside diameter of the casing shall be not less than the specified diameter of the drilled shaft. The top of the casing shall extend sufficiently above the top elevation

of the finished drilled shaft to permit excess concrete to be placed for the anticipated slump caused by casing removal.

6-16.3(5) Backfilling Shaft

This Section is supplemented with the following:

Placing Concrete: Promptly following the Engineer's inspection of the drilled pile excavation and placement of the soldier piles, place concrete in the finished drilled pile. Concrete shall be placed in the drilled pile up to the elevation shown in the Plans.

Place concrete in the drilled pile excavation by dropping concrete through a funnel or drop chute placed in the top of the drilled pile excavation. Center the funnel or chute in the excavation and provide a discharge pipe of not more than 8 inches in diameter with a length of not less than 2 feet.

Force the concrete to drop straight down into the excavation without hitting the side of the casing before the concrete strikes the bottom. Cast the entire drilled pile in a single pour. Place concrete continuously exercising car to fill every part of the pile excavation and to work the concrete around the soldier pile without displacing the pile.

If tremie methods are approved by the Engineer, keep tremie pipe as near as possible to the bottom of the excavation and always below the top of the column of concrete.

6-16.3(6)C Permanent Lagging
(******)

This Section is supplemented with the following:

The Contractor shall install lagging as indicated on the Plans and fasten to soldier pile flanges as required for support during lagging installation.

Installing Timber Lagging

a. The excavation and removal of lean concrete for the lagging installation shall proceed in advance of the lagging.

b. The lagging shall be installed from the top of the pile proceeding downward.

c. Voids behind the timber lagging shall be backfilled as required to restore existing slope with 1-1/4-inch minus crushed rock meeting the requirements of Section 9-03.9(3) of the Standard Specifications. The level of the backfill behind the lagging shall be to the finished grade shown in the Plans.

d. Excavation below the installed lagging shall not be greater than 3 feet during the lagging installation.

Contractor shall install lagging immediately as excavation progresses. Excavation faces shall not be left unsupported overnight. All timber lagging shall be as specified on the Plans.

Apply heavy brush coat of same wood preservative material to surfaces exposed to sawcutting or drilling.

6-16.4 Measurement

(******)

Supplement this Section with the following:

Lagging will be measured by the square foot area of lagging installed. The quantity will be computed based on the vertical dimension from the highest lagging elevation to the lowest lagging elevation between each pair of pair of adjacent soldier piles as the height dimension and the center-to-center spacing of the soldier piles as the length dimension.

Soldier pile shaft construction will be measured by the linear foot of shaft excavated below the top of the finished groundline for the shaft, defined as the finished grade point at the center of the shaft.

6-16.5 Payment

(******)

This Section is supplemented with the following:

The unit contract price per square foot for "Lagging - _____" shall include all costs for all labor, equipment, materials, and tools necessary to furnish and install the lagging including, but not limited to, furnishing and installing pressure treated wood lagging, field application of preservative to cut ends of lagging, filled voids behind lagging, and wastehaul.

"Furnishing Soldier Pile-____," per linear foot.

All costs in connection with constructing soldier pile shafts and furnishing and installing soldier piles shall be included in the unit contract price per linear foot for "Furnishing Soldier Pile-____," including shaft excavation, temporary casing if used, CDF, lean concrete, concrete Class 4000P, wastehaul of excess or unsuitable material, excavation/grading/benching, fabricating and painting/coating the pile assemblies, field splicing, and field trimming the soldier piles.

7-04 STORM SEWERS

7-04.2 Materials

(January 4, 2010 G&O GSP)

Delete the sixth paragraph under this Section and replace it with the following:

The Contractor shall provide the diameter and type of pipe specified on the Plans.

HDPE storm sewer pipe shall meet the requirements of Section 9-05.23. HDPE pipe shall be SDR 26 or SDR 32.5. All fittings shall be SDR 26.

7-04.3(1)A General

(January 20, 2009 G&O GSP)

This Section is supplemented with the following:

All lines shall be flushed clean of all debris prior to acceptance. The debris shall be intercepted and collected at the nearest downstream point of access. The material shall then be loaded and wastehauled to a Contracting Agency approved dumpsite.

All storm sewer lines shall be inspected with a television camera prior to final acceptance.

7-04.5 Payment

(January 7, 2013 G&O GSP)

Delete all paragraphs under this section and replace with the following:

Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the Proposal:

"____ Storm Sewer Pipe, ____ In. Diam. (Incl. Bedding)," per linear foot.

The unit contract price per linear foot of "____ Storm Sewer Pipe, ____ In. Diam. (Incl. Bedding)" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install this item to include, but not limited to, excavation, pipe bedding, backfill with suitable native material, compaction, removal and wastehaul of excess or unsuitable trench excavation material, dewatering, bypass pumping and maintaining storm sewer flows, connections to existing and new systems, flushing and cleaning, material and compaction testing of suitable native backfill, televised pipe inspection, and low pressure air testing.

"HDPE Storm Sewer Pipe, 12 In. O.D.," per linear foot.

The unit contract price per linear foot of "HDPE Storm Sewer Pipe, 12 In. O.D." shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install this item to include, but not limited to, excavation, pipe bedding, backfill

with suitable native material, compaction, removal and wastehaul of excess or unsuitable trench excavation material, dewatering, bypass pumping and maintaining storm sewer flows, HDPE fittings, welding, concrete pipe anchor, energy dispersion system, connections to existing and new systems, flushing and cleaning.

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.3 Construction Requirements

(January 20, 2009 G&O GSP)

This Section is supplemented with the following:

The Contractor shall construct all manholes and catch basins from precast concrete bases and risers. Cast-in-place concrete bases shall only be used for "straddle" of existing systems and shall be watertight.

In areas of new and existing pavement, the grate rim elevation shall be set to promote drainage flow. In unimproved areas, the rim elevations shall be set 2 inches above finished grade unless otherwise shown on the Plans.

Dewatering shall be per Section 7-08.3(1).

Unless specifically noted herein or shown differently on the Plans, the Contractor shall connect to the manhole and catch basin as follows:

Pipe	**Connection System**
DI	Kor-N-Seal*
HDPE	Kor-N-Seal*
PVC	Kor-N-Seal*
Corrugated Polyethylene	Per Manufacturer's Recommendation

*Or Contracting Agency approved equal.

7-05.3(2) Abandon Existing Manholes

(November 1, 2011 G&O GSP)

This Section is supplemented with the following:

The method for abandoning Type 2 catch basins is the method used to abandon manholes.

7-05.3(3) Connections to Existing Manholes

(******)

This Section is supplemented with the following:

The locations, type and size of the existing structures and lines have been determined from available records, and are approximate; however, it is anticipated that connections to these existing facilities may be made, in general, as shown on the Plans.

It shall be the responsibility of the Contractor to determine the exact location and ascertain the type and size of the existing facilities prior to starting work on each connection, and to provide any minor alterations, as required, at no additional cost to the Contracting Agency.

Where piping is to be connected to existing structures, the opening(s) shall be core-drilled in the structure. The use of jackhammers and/or sledgehammers to knock out the hole shall not be allowed.

Connection of the HDPE storm pipe to the new Type 2 Catch Basin shall be as shown on the Plans.

7-05.5 Payment

(January 7, 2013 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the Proposal:

"Catch Basin, Type 1," per each.

"Concrete Inlet," per each.

"Catch Basin, Type 2, ____ In. Diam.," per each.

The unit contract price per each for "Catch Basin, Type 1," "Concrete Inlet," or "Catch Basin, Type 2, ____ In. Diam."" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install this item to include, but not limited to, lids, frames and grates, slip resistant lids where indicated on the Plans, structure excavation, foundation gravel, backfill with suitable native material, compaction, removal and wastehaul of excess or unsuitable excavated material, pipe connection, dewatering, bypass pumping and maintaining stormwater flows, adjusting to finished grade, and material and compaction testing of suitable native backfill.

"Catch Basin, Type 2, ____ In. Diam. With Pipe Anchor," per each.

The unit contract price per each for "Catch Basin, Type 2, ____ In. Diam. With Pipe Anchor" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install this item to include, but not limited to, lids, frames and grates, structure excavation, foundation gravel, backfill with suitable native material, compaction, removal and wastehaul of excess or unsuitable excavated material, pipe connection, dewatering, bypass pumping and maintaining stormwater flows, adjusting to finished grade, bracket, stainless steel tie rods, bolts, and material and compaction testing of suitable native backfill.

7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

7-08.2 Materials

(January 4, 2010 G&O GSP)

This Section is supplemented with the following:

The pipe used on this project shall be the type and size specified on the Plans.

Bank run gravel for trench backfill shall meet the requirements of Section 9-03.19.

7-08.3(1)A Trenches

(November 24, 2010 G&O GSP)

Delete the first three paragraphs under this Section and replace them with the following:

The length of trench excavation in advance of pipe laying shall be kept to a maximum of 100 feet. Excavation shall either be closed up at the end of the day or protected per Section 1.07.23(1).

The Contractor shall limit his excavation to the limits of the maximum payment width and depth shown on the Plans. If the Contractor purposely or neglectfully excavates trenches to a width or depth beyond the neat line payment limit of the trench as shown on the Plans, the expenses associated with any additional trenching, wastehaul, trench backfill, compaction and testing, and surface restoration as a result of excavating beyond the neat line payment limits shall be borne by the Contractor.

It is not anticipated that solid rock will be encountered. Should such material be encountered, the excavation, removal and wastehaul will be paid for by change order per Section 1-04.4. Boulders or broken rock less than 2 cubic yards in volume, shall not be classified as rock, nor will so-called “hard-pan” or cemented gravel, even though it may be advantageous to use special equipment in its removal.

Trench excavation shall also include wastehauling all excess and/or unsuitable material encountered, including but not limited to, abandoned pipelines, concrete, asphalt, tree stumps, trees, logs, abandoned rail ties, piling, and riprap.

The Contractor shall furnish all equipment necessary to dewater the excavation. Before operations begin, the Contractor shall have sufficient pumping equipment and/or other machinery available on site to assure that the operation of any dewatering system can be maintained.

The Contractor shall dispose of the water in such a manner as not to cause a nuisance or menace to the public, and comply with all codes, regulations, and ordinances of applicable governing authorities with regard to drilling, dewatering, and erosion control.

The release of groundwater to its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundation soil, prevent disturbance of backfill and prevent movement of structures and pipelines.

The dewatering system shall be installed and operated by the Contractor so that the groundwater level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property. Should settlement of the surrounding area and/or structures be observed, the Contractor shall cease dewatering operations and implement contingency plans. The cost of repairing any damage to adjacent structures, underground facilities or utilities and satisfactory restoration of above ground facilities to include fences, paving, concrete, etc., shall be the responsibility of the Contractor.

The Contractor shall be required to comply with all conditions and requirements mandated by the Department of Ecology for the construction, operation, and decommissioning of dewatering facilities.

The Contractor shall obtain approved grading and filling permits for all spoils material sites, from the Contracting Agency, County, or both as required. These permits shall be secured and paid for by the Contractor.

Existing abandoned asbestos cement pipes are located within the project limits at the approximate locations noted on the Plans. In addition, it is the intent of this Contract that the Contractor abandon existing asbestos cement pipe in place to the limits indicated. The Contractor shall anticipate that the construction of this project will require cutting of asbestos pipe and further require the removal and disposal of asbestos cement pipe. All work shall be performed in compliance with the requirements of the WAC 296-65, National Emission Standards for Asbestos, Puget Sound Clean Air Agency, Labor and Industries and all Local, State and Federal Agencies having jurisdiction. All costs of this work shall be considered incidental for the Project and as such merged in the various items bid.

7-08.3(2)B Pipe Laying – General

(January 4, 2010 G&O GSP)

This Section is supplemented with the following:

All pipe shall be unloaded from delivery vehicles with mechanical equipment. Dropping of pipe onto the ground or mats will not be permitted. All pipe and fittings shall be carefully lowered into the trench in such a way as to prevent damage to pipe materials and protective coatings and linings. Under no circumstances shall materials be dropped or dumped into the trench.

All pipe shall be laid in straight lines and at uniform rate for grade between structures. Variation in the invert elevation between adjoining ends of pipe due to non-concentricity of joining surface and pipe interior surfaces shall not exceed 1/64 inch per inch of pipe diameter, or 1/2-inch maximum.

Every precaution shall be taken to prevent foreign material from entering the pipe while it is being laid. After placing a length of pipe in the trench, the spigot end shall be centered in the bell and pipe forced home and brought to correct line and

grade. The pipe shall be secured in place with pipe bedding tamped under it. Precaution shall be taken to prevent dirt from entering the joint space. At times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means approved by the Contracting Agency. If water is in the trench when work resumes, the seal shall remain in place until the trench is dewatered as specified for groundwater control. Tee branches shall be blocked and sealed with the same joint and pipe material as used for pipes.

Care shall be taken to properly align, clean and lubricate the spigot and socket area of the pipes before joining. The pipe spigot shall be forced into the socket until the reference mark on the spigot is flush with the bell end.

All connections to existing pipe of differing materials shall be made with adapters which are specifically manufactured for this purpose. If the band type adapters are used, then only stainless steel bands will be allowed.

The Contractor shall obtain approved grading and filling permits for all spoils material sites, from the Contracting Agency, County, or both as required. These permits shall be secured and paid for by the Contractor.

7-08.3(3) Backfilling
(January 4, 2010 G&O GSP)

Delete the second paragraph under this Section and replace with the following:

Pipe zone backfill shall be gravel backfill for pipe zone bedding conforming to the requirements of Section 9-03.12(3).

This Section is supplemented with the following:

It is the intent of these Specifications to utilize suitable excavated material for trench backfill where available. The Contractor shall provide evidence from a testing laboratory that any native material deemed suitable by the Contractor meets the intent of these Specifications and can be compacted to minimum requirements. Excavated material suitable for trench backfill shall conform to the requirements of Section 9-03.15. However, the presence and location of suitable material is not guaranteed and will be as discovered in the field. Import material will be required and shall be utilized when necessary, and as called out on the Plans and further preapproved by the Contracting Agency.

7-08.3(4) Plugging Existing Pipe
(April 24, 2009 G&O GSP)

This Section is supplemented with the following:

The Contractor shall anticipate that all existing pipes to be abandoned in place shall be plugged as specified herein.

7-08.4 Measurement
(January 7, 2013 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Measurement for Removal of Unsuitable Material (Trench) will be per cubic yard of material removed below the foundation depth as shown on the Plans.

Measurement of Bank Run Gravel for Trench Backfill will be per ton. The measurement shall be calculated in accordance with the trench detail shown on the Plans and using a conversion factor for cubic yards to tons of 1.8 tons/cy. The Contractor shall provide the Contracting Agency with truckload tickets at the end of each day to be used to support the calculated quantities.

No specific unit of measurement will apply to the lump sum item Trench Excavation Safety System.

7-08.5 Payment
(January 7, 2013 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the Proposal:

"Removal of Unsuitable Material (Trench)," per cubic yard.

The unit contract price per cubic yard for "Removal of Unsuitable Material (Trench)" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to remove unsuitable material below the trench bottom to include, but not limited to, excavation, removal and wastehaul of unsuitable excavated material and dewatering.

"Trench Excavation Safety Systems," lump sum.

The lump sum contract price for "Trench Excavation Safety Systems" shall include all costs of furnishing, installing, maintaining, and removing those items necessary to provide adequate safety systems for trench excavation, as specified in Section 2-09.3(4). This item shall be paid proportionate to the satisfactory installation of all facilities that require trench excavation safety systems including pipeline, conduits, walls, embankments, and structures as noted in the Proposal, or otherwise required for the performance of this work.

"Bank Run Gravel for Trench Backfill," per ton.

The unit contract price per ton for "Bank Run Gravel for Trench Backfill" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install the imported trench backfill to include, but not limited to, backfilling trenches, placing, shaping, compacting, wastehaul and disposal of excess native

material, and material and compaction testing of the bank run gravel backfill material.

All costs associated with furnishing and installing pipe bedding for culverts, storm sewer, and sanitary sewer piping systems shall be included into the unit contract price for the type and size of pipe installed.

All costs to providing dewatering as required shall be included into the unit contract price for the type and size of pipe installed.

All costs of providing bypass pumping as required shall be included into the unit contract price for the type and size of pipe installed.

All costs associated with excavation, stockpiling, backfilling, compacting, and wastehauling of excavated native material shall be included in the unit contract price for the type and size of pipe installed.

7-12 VALVES FOR WATER MAINS

7-12.3 Construction Requirements

(June 16, 2006 G&O GSP)

This Section is supplemented with the following:

The required field inspection shall include operating the valve over the full range of opening to closed to ensure the valve firmly seals and fully clears the flow path.

The ears of the valve box cover shall be aligned along the pipe centerline.

7-12.5 Payment

(January 7, 2013 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the Proposal:

"Air and Vacuum Release Assembly," per each.

The unit contract price per each for "Air and Vacuum Release Assembly" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install this item to include, but not limited to, excavation, backfill with suitable native material, sand bedding, gravel sump, compaction, removal and wastehaul of excess or unsuitable trench excavation material, dewatering, valve box, valve stem extension, testing, flushing, disinfection and final adjustment of the valve boxes to finished grade. The unit cost also include removal of the existing air and vacuum release assembly and delivery to the Coal Creek Utility District.

"Tapping Sleeve and Valve Assembly, ____ In.," per each.

The unit contract price per each for "Tapping Sleeve and Valve Assembly, ____ In." shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install this item to include, but not limited to, excavation, backfill with suitable native material, compaction, removal and wastehaul of excess or unsuitable trench excavation material, dewatering, valve box, valve stem extension, testing, flushing, disinfection and final adjustment of the valve box to finished grade.

"Adjust Valve Box," per each.

The unit contract price per each for "Adjust Valve Box" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to adjust existing valve boxes to the finished surfaces, as noted and detailed on the Plans.

7-14 HYDRANTS

7-14.3(1) Setting Hydrants

(June 16, 2006 G&O GSP)

Delete the first paragraph under this Section and replace it with the following:

Where shown in the Plans, hydrants shall be installed in accordance with the detail provided on the Plans. In addition, a minimum 3-foot radius unobstructed working area shall be provided around all hydrants. The safety flange shall be set 2 inches above finished grade.

This Section is supplemented with the following:

The Contractor shall furnish fire hydrants with the correct bury depth (trench depth), in accordance with the specified pipe depth and special conditions of the Project. The fire hydrants shall be installed to provide the mounting height above finished grade as shown on the Plans. The hydrant shall be installed plumb on the vertical axis.

Hydrants shall be equipped with one Storz pumper nozzle. The pumper port shall be turned to face the street.

After installation, each hydrant shall receive two field coats of paint. The first coat shall be thoroughly dried before applying the second coat. The exact colors shall be per Contracting Agency's current standards.

One blue lane marker, Type 2, shall be installed at all fire hydrant locations. It shall be installed on the adjacent pavement at locations designated by the Contracting Agency and in accordance with the provisions of Section 8-09 and Section 9-21.

7-14.3(2) Hydrant Connections
(June 16, 2006 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Hydrant laterals shall consist of one continuous section of 6-inch Class 52 ductile iron pipe from the main to the hydrant and shall include as auxiliary gate valve set vertically and placed in accordance with the detail provide on the Plans.

7-14.3(2)A Hydrant Restraints
(June 16, 2006 G&O GSP)

Delete the first sentence of the first paragraph under this Section and replace with the following:

The thrust created in the hydrant lateral shall be restrained as shown on the detail provided on the Plans.

7-14.4 Measurement
(November 24, 2010 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Measurement of resetting hydrants, moving existing hydrants and reconnecting existing hydrants will be made per each.

No measurement shall be made for hydrant extension.

7-14.5 Payment
(January 7, 2013 G&O GSP)

Delete all paragraphs in this Section and replace it with the following:

Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the Proposal:

"Hydrant Assembly," per each.

The unit contract price per each for "Hydrant Assembly" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to furnish and install this item to include, but not limited to, excavation, backfill with suitable native material, compaction, removal and wastehaul of excess or unsuitable trench excavation material, dewatering, painting, blocking, restraint systems, hydrant extensions, Storz adaptors, fittings, gravel dry well, concrete bricks, the 6-inch hydrant stub, restraint joints, turning the pumper port to face the street, material and compaction testing of suitable native backfill, testing, flushing, and disinfection.

"Resetting Existing Hydrant," per each.

The unit contract price per each for "Resetting Existing Hydrant" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete all work to relocate an existing fire hydrant to include, but not limited to, excavation, backfill with suitable native material, sand bedding, compaction, removal and wastehaul of excess or unsuitable trench excavation material, dewatering, painting, blocking, restraint systems, fittings, gravel drywell, concrete pads, the 6-inch hydrant stub, hillside barrier, turning the pumper port to face the street, material and compaction testing of suitable native backfill, testing, flushing, and disinfection

The work required to remove and deliver existing fire hydrants to the Coal Creek Utility District shops as required shall be considered incidental to the Project and as such merged into the various unit and lump sum contract items requiring the removal.

7-15 SERVICE CONNECTIONS

7-15.3 Construction Requirements

(June 16, 2006 G&O GSP)

Delete the first paragraph in this Section and replace with the following:

All piping and fittings shall be left exposed until they have been inspected by Coal Creek Utility District and approval is given for backfilling.

7-15.4 Measurement

(November 24, 2010 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Measurement of "Replace Existing Water Service" will be per each for each water service replaced.

7-15.5 Payment

(January 7, 2013 G&O GSP)

Delete all paragraphs paragraph in this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the Proposal:

"Replace Existing Water Service," per each.

The unit contract price per each for "Replace Existing Water Service" shall constitute full compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete this work to include, but not limited to, excavation, backfill with suitable native material, compaction, removal and wastehaul of excess or unsuitable trench excavation material, dewatering, box and lid, setter, fittings, couplings, sand bedding, connecting to the

existing service pipe(s), material and compaction testing of suitable native backfill, testing, flushing, and disinfection. The Contractor shall field verify the location and size of the service pipe prior to commencing work on the individual service.

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.3 Construction Requirements

(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

The Contractor shall take all necessary precautions and utilize the Department of Ecology's (ECY) Best Management Practices to prevent sediment and fugitive dust from construction activities from entering into storm water systems, natural waterways, or environmentally sensitive areas and from otherwise being carried away from the construction area by stormwater or air.

Temporary erosion protection shall be furnished, installed, and maintained for the duration of this Project to protect environmentally sensitive areas, sloped surfaces, adjacent areas and/or water bodies or conveyance systems. Temporary erosion protection may include the use of straw, jute matting, wattles, heavy plastic sheeting, or other forms of ground cover on areas disturbed by construction. Sloped surfaces shall be restored and protected in such a manner that surface runoff does not erode the embankments, slopes, or ground surfaces, nor create surface channels, or ruts.

Any damage caused by the Contractor's failure to keep the erosion materials maintained shall be borne by the Contractor alone.

8-01.3(1)A Submittals

(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

The Contractor shall be required to prepare, maintain, and update the TESC plan, as may be required during the course of the Project. The details included are provided solely for the establishment of basic erosion control measures and are not intended to be a complete plan.

8-01.3(9)D Inlet Protection

(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

All catch basins grates within the project limits and adjacent areas shall have inlet protection installed to prevent sedimentation from entering the storm system. The inlet protection shall be routinely cleaned of sediment to prevent plugging. This sediment shall be regularly removed, loaded, and hauled to waste whenever it presents a potential surface accumulation problem or concern to the Contracting Agency.

8-01.4 Measurement
(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

No specific unit of measure will apply to erosion control and water pollution prevention.

8-01.5 Payment
(May 4, 2020 G&O GSP)

Supplement this Section with the following:

Payments will be made in accordance with Section 1-04.1 for the following Bid Item(s):

"Erosion Control and Water Pollution Prevention"

The lump sum contract price for "Erosion Control and Water Pollution Prevention" shall include all costs for preparing and implementing a TESC plan. All temporary erosion control and water pollution prevention as stated herein and as further indicated on the Plans that is not otherwise paid under separate contract items in the Proposal, including furnishing, installing, maintaining, and removal of erosion/water pollution prevention devices.

8-02 ROADSIDE RESTORATION

8-02.2 Materials
(May 4, 2020 G&O GSP)

This Section shall be supplemented with the following:

Grass seed, of the following composition, proportion, and quality shall be applied at the rates shown below on all areas requiring roadside seeding within the project:

Kind and Variety of Seed in Mixture by Common Name and (Botanical Name)	**Pounds Pure Live Seed (PLS) Per Acre**
Dwarf Perennial Ryegrass	100
Creeping Red Fescue	50
Hard Fescue	50
Total Pounds PLS Per Acre	**200**

Seeds shall be certified "Weed Free," indicating there are no noxious or nuisance weeds in the seed.

Sufficient quantities of 18-6-12 fertilizer shall be applied at 650 pounds per acre, 72 percent of nitrogen applied per acre shall be derived from isobutylidene diurea (IBDU), cyclo-di-urea (CDU), or a time release, polyurethane coated source with a minimum release time of 6 months. The remainder may be derived from any source.

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

Wood fiber mulch shall be applied at a rate of 2,000 pounds per acre, and tackifier shall be applied at a rate of 43 pounds per acre.

Bark mulch for planting strip areas and surface restoration adjacent to sidewalks shall conform to Section 9-14.4(3).

8-02.3(3)B Chemical Pesticides
(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

No chemical herbicides will be allowed in planting areas.

8-02.3(4) Topsoil
(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

The costs of removing all excess material and debris shall be considered incidental to the Project and as such merged in the various items bid.

Cultivate 4 inches of imported topsoil, Type A into the existing subgrades to a minimum transition depth of 6 inches in areas to be seeded with topsoil, in sod areas, in planting strip areas and in fill slopes to be planted, as shown on the Plans.

8-02.3(4)A Topsoil Type A
(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

Imported Topsoil, Type A, shall be a mixture of 33.3 percent compost by volume, 33.3 percent loam by volume and 33.3 percent sandy loam by volume as defined by USDA soil texture triangle, screened through a 3/8-inch screen or approved equal. Compost shall be made from ground yard waste that has first been screened through a 5/8-inch trammel screen. The composting process shall include five 3-day periods during which the compost temperature is 131 to 165 degrees Fahrenheit. The total composting time period shall be a minimum of 4 months. Topsoil shall be weed free.

8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation
(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

Seeding, Sod and Planter Strip Areas: Finished grades of planting and seeding areas shall allow for soil preparation and mulch. Finished grades shall be as follows:

Seeding and Sod Areas:	1 inch below all walks, curbs, and/or hard-surface edges.

Perform all excavation and backfill necessary to provide finish grade of landscape areas as indicated and specified. Remove from site excess and unsuitable material. Landscape areas shall be graded to lines, grades, and cross sections indicated. Grades shall meet the following:

4. Maximum 2:1 slope, unless otherwise indicated.

5. Smooth and round off surfaces at abrupt grade changes.

6. Feather grades to meet existing gradually. Rake planting areas smooth and remove surface rocks over 2-inches diameter.

7. Provide minimum 2 percent crown or slope in all landscape areas. The Contractor is responsible for any adverse drainage conditions that may affect plant growth, unless he contacts the Project Engineer immediately indicating any possible problem.

Finish grades shall be inspected and accepted by the Contracting Agency prior to commencing planting or seeding work.

The costs of removing all excess material and debris shall be considered incidental to the Project and as such merged in the various items bid.

Final Acceptance

Final acceptance by the Contracting Agency for soil preparation will be contingent on the approval of all inspections, and that the soil preparation is consistent with these specifications and with the Plans.

8-02.3(8) Planting
(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

Plants shall be handled so as to avoid all damage, including breaking, brushing, root damage, sunburn, drying, freezing, or other injury. Plants must be covered during transport. Plants shall not be bound with wire or rope in a manner that could damage branches. Protect plant roots with shade and wet soil in the time period between delivery and installation. Do not lift container stock by trunks, stems, or tops. Do not remove from containers until ready to plant.

The Contractor shall provide supplemental water to all plants as necessary to keep moisture levels appropriate to the species' horticultural requirements. Plants shall not be allowed to dry out. All plants shall be watered thoroughly immediately upon installation. Soak all containerized plants thoroughly prior to installation. Plants whose roots have dried out from exposure will not be accepted at installation inspection. All rejected plants shall be immediately removed from the site.

All plants shall be tagged for easy identification for future monitoring.

Plants shall be normal in pattern of growth, healthy, well branched, vigorous, with well-developed root systems, and free of pests and disease. Damaged, diseased, pest-infested, scraped, bruised, dried-out, burned, broken, or defective plants will be rejected. Plants with pruning wounds over 1 inch in diameter will be rejected.

Plant substitutions are not permitted without the permission of the Contracting Agency. Same-species substitutions of larger or smaller sized plants and the substitution of bare-root plants for container plants also require permission of the Contracting Agency. Small plants and bare root plants often experience less transplant shock and adapt more quickly to site conditions, resulting in a higher success rate. However, same-species substitutions will only be approved based on certain site-specific conditions. Landscaping varieties are not acceptable substitutes.

Immediately before installation, plants with minor root damage (some broken and/or twisted roots) must be root-pruned. Matted or circling roots of containerized plantings must be pruned or straightened and the sides of the root ball must be roughened from top to bottom to a depth of approximately 1/2 inch in two to four places. Plants with any other type of root damage will be rejected. All rejected plants will be immediately removed from the site.

If plantings fall over for any reason, they shall be replanted or replaced as necessary.

Most shrubs and trees do not require staking. If the plant can stand alone without staking in a moderate wind, do not use a stake unless indicated otherwise on the Plans. However, if the plant needs support, then use a stake with strapping or webbing placed as low as possible on the trunk to loosely brace the tree with two stakes. Do not brace the plant tightly or too high on the stem. If the plant is unable to sway, it will further lose the ability to support itself. Do not use wire in a rubber hose for strapping or other strapping that exerts pressure on the bark under normal conditions.

8-02.3(10)C Lawn Establishment

(May 4, 2020 G&O GSP)

This Section is supplemented with the following:

Prior to laying sod, the initial application of the 10-20-20 fertilizer shall be spread and raked into the topsoil. When grass reaches 2 inches in height and before mowing, apply the second application of 10-20-20.

Sod shall be placed in accordance with standard horticultural practices. Dry soil shall be moistened by sprinkling. All butt joints shall be staggered. On sloped areas, the sod shall be laid with the long dimension parallel to the toe or top of slope. After placing, the sod shall be rolled and heavily watered by sprinkler.

The Contractor shall be responsible for watering and fertilizing the sod until physical completion of the Project. Watering shall be scheduled to prevent drying of joints between sod strips. Four weeks after the first mowing, 6-2-4 fertilizer shall be applied and reapplied at 6-week intervals.

Inspection and Substantial Completion

After completion of all sodding and seeding, including the post-planting fertilization which follows the first mowing, the Contracting Agency will review the sodded or seeded areas for adequacy. Areas not fully established (sod) or germinated (seeded) with a uniform stand of grass, or areas damaged through any cause prior to this inspection shall be resodded/reseeded, by the Contractor as herein specified and at the Contractor's sole expense as no additional monies will be due the Contractor. "Uniform stand of grass" shall signify complete cover of lush, thriving, green grass with no bare spots.

Reseeding

Reseed and fertilize with 6-2-4 at a rate of 400 pounds (30 pounds) per 1,000 square foot, all areas failing to show a uniform stand of grass after germination of seed, or damage through any cause before physical completion of the Project.

8-02.3(13) Plant Establishment
(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

All references to "first-year plant establishment" in this Section shall read "plant establishment."

The second paragraph of this Section is replaced with the following:

If directed by the Engineer, the Contractor shall submit a plant establishment plan for approval by the Engineer. The plant establishment period shall extend from notification of acceptance of initial planting through physical completion of the Project.

8-02.4 Measurement
(May 4, 2020 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Topsoil will be measured by the cubic yard to the nearest 0.5 cubic yard in the haul conveyance or container at the point of delivery. The Inspector shall be given a copy of the trip ticket or other such evidence, which lists the quantity delivered and placed on site. The Contractor shall coordinate same.

Bark or Wood Chip Mulch will be measured by the cubic yard in the haul conveyance or container at the point of delivery. The Inspector shall be given a copy of the trip ticket or other such evidence, which lists the quantity delivered and placed on site. The Contractor shall coordinate same.

Seeding, fertilizing and mulching will be measured by the square yard by ground slope measurement.

The pay quantities for plant materials will be determined by count of the number of satisfactory plants in each category accepted by the Engineer.

8-02.5 Payment

(May 4, 2020 G&O GSP)

Delete all paragraphs under this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1 for each of the following listed bid items that are included in the Proposal:

"Topsoil, Type __", per cubic yard.

The unit contract price per cubic yard for "Topsoil, Type __" shall be full pay for all costs necessary for providing the source of material for topsoil Type __, for pre-excavation weed control, excavating, loading, hauling, intermediate windrowing, stockpiling, weed control on stockpiles or windrows, and removal, furnishing, placing, cultivating, spreading, processing, and compacting the topsoil.

"Bark or Wood Chip Mulch", per cubic yard.

The unit contract price per cubic yard for "Bark or Wood Chip Mulch" shall be full pay for all costs necessary to furnish and install the bark mulch.

"Seeding, Fertilizing and Mulching," per square yard.

The unit contract price per square yard for "Seeding, Fertilizing and Mulching" shall include all costs necessary to prepare the area, furnish and install the seed, fertilizer, mulch and tackifier, erect barriers, control weeds, establish lawn areas, water, mow, complete the Work as specified, and reseed as needed.

The unit contract price per each for "PSIPE ____" shall be full pay for all labor, material, tools, equipment, and supplies necessary to fine grade, produce, plant, fertilize, cultivate, furnish and install soil amendments, and cleanup.

As the plants that include plant establishment are obtained, propagated, and grown, the Engineer will make partial payments as follows after inspection:

- Payment of 75 percent of the unit contract price, per each, at the completion of the initial planting.

- Payment will be increased to 100 percent upon final acceptance of the planting area by the Engineer.

8-04 CURB, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements

(November 21, 2009 G&O GSP)

This Section is supplemented with the following:

Any curb and gutter damaged, defaced, cracked, chipped, or determined to be of poor workmanship, in the opinion of the Contracting Agency, shall be removed, wastehauled and replaced by the Contractor, at the Contractor's expense. Sacking and grinding shall not be considered an acceptable means for repairing unacceptable sections. The Contractor shall further provide verbal and written notice (door hanger) to property owners identifying restricted use of their driveways, sidewalks, etc. This notice must be provided twice: at 1 week prior and again 1 day prior to the work being performed.

8-04.5 Payment

(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

The unit contract price per linear foot for "Cement Concrete Traffic Curb and Gutter," shall include all costs associated with furnishing labor, material, tools, and equipment for the complete installation of these items including, but not limited to, forming, placing, block-outs, lowering curbs for sidewalk ramps and driveways, joint filler, curing, temporary barricades, end-sections, material testing and any other items as shown on the plans and as required in the field for a complete installation. It shall also include protecting all curb and gutters from vandalism and other damage until accepted by the Contracting Agency.

8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES

8-06.3 Construction Requirements

(September 18, 2018 G&O GSP)

This Section shall be supplemented with the following:

Cement Concrete Driveway Entrance shall conform to the details shown on the Plans. The driveway width shall be as shown on the Plans or as directed by the Engineer to suit field conditions. The Contractor's attention is called to the several different driveway entrance configurations. It is essential that the proper detail be used as indicated on the Plans. The Contractor shall confirm each driveway type and width in the field with the Engineer prior to forming the driveway. Failure to do so shall be justification for removing and replacing the work at no additional cost to the Contracting Agency.

Before placing any concrete, the Contractor shall have on the job site enough protective paper, or equivalent, to cover the pour of an entire day in the event of rain or other unsuitable weather conditions.

Driveway access shall be maintained at all times. The Contractor shall use steel plates to bridge entrances or construct entrances in sections in order to protect new driveway entrances and allow access during the curing period.

The placing and compaction of the subgrade and crushed surfacing shall be in accordance with the requirements of the applicable sections of the Standard Specifications and these Special Provisions.

The driveway entrance shall be protected against damage or defacement of any kind until acceptance by the Contracting Agency. Any driveway entrance not acceptable, in the opinion of the Engineer, because of damage or defacement shall be removed, wastehauled, and replaced by the Contractor at the Contractor's expense. Sacking, grinding, or spot repair shall not be considered an acceptable means for repairing unacceptable sections.

8-06.4 Measurement
(November 21, 2009)

Delete this Section and replace with the following:

Cement Concrete Driveway Entrance will be measured by the square yard of total surface area from the backside of the curb to the backside of the sidewalk, regardless of entrance type.

Cement Concrete Driveway Repair will be measured by the square yard of cement concrete driveway installed.

8-06.5 Payment
(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

The unit contract price per square yard for "Cement Concrete Driveway Entrance" shall be full compensation for all labor, tools, equipment, materials, and incidentals required to perform the work as specified including, but not limited to, forming, joint material, furnishing and installing the concrete, finishing, protecting the work, temporary steel plating, and material testing, regardless of entrance type.

The unit contract price per square yard for "Cement Concrete Driveway Repair" shall be full compensation for all labor, tools, equipment, materials, and incidentals required to perform the work as specified including, but not limited to, forming, joint material, furnishing and installing the concrete, finishing, protecting the work, temporary steel plating, and material testing.

Crushed surfacing top course shall be paid under the unit contract item for "Crushed Surfacing Top Course."

8-09 RAISED PAVEMENT MARKERS

8-09.3 Construction Requirements

(June 16, 2006 G&O GSP)

This Section is supplemented with the following:

One Blue Raised Pavement Marker, Type 2 shall be placed in-line with the lane line that is closest to the hydrant perpendicular to the centerline of the roadway in front of each fire hydrant. On a two-lane roadway, the marker shall be offset from the centerline 4 inches toward the hydrant location.

8-12 CHAIN LINK FENCE AND WIRE FENCE

8-12.1 Description

(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

This work also consists of removing, stockpiling, and reinstalling existing fence (including gates).

8-12.2 Materials

This Section is supplemented with the following:

(August 3, 2009 WSDOT GSP)

Coated Chain Link Fence

Chain link fence fabric shall be hot-dip galvanized with a minimum of 0.8 ounce per square foot of surface area.

Fencing materials shall be coated with an ultraviolet-insensitive plastic or other inert material at least 2 mils in thickness. Any pretreatment or coating shall be applied in accordance with the manufacturer's written instructions. The Contractor shall provide the Engineer with the manufacturer's written specifications detailing the product and method of fabrication. The color shall be black, or be as approved by the Engineer.

Samples of the coated fencing materials shall be approved by the Engineer prior to installation on the project.

The Contractor shall supply the Engineer with two aerosol spray cans containing a minimum of 14 ounces each of paint of the color specified above. The touch-up paint shall be compatible with the coating system used.

8-12.3 Construction Requirements

(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

The chain link fabric shall not extend above the plane of the top rail. The top rail shall be a smooth continuous member.

Relocate Existing Fence

The Contractor shall be required to remove and reinstall existing fences (including gates) as noted on the Plans. The Contractor is urged to inspect the construction site so as to ascertain the condition of existing fences to be removed and relocated. The fences shall be reinstalled as soon as practicable. The Contractor shall protect the fence materials from damage during the removal, storage, and reinstallation of said fences. Any damage to the materials caused by the Contractor in removing or reinstalling the existing fences, or by the neglect of the Contractor in protecting the fence during storage, shall be cause for rejection by the Engineer; and shall be replaced, in kind at no additional cost to the Contracting Agency. The Contractor shall be required to furnish and install new posts for the entire length of each relocated fence. The Contractor shall install the new posts for relocated wood fence to a minimum depth of 2 feet and encase in commercial concrete. Wood posts for relocated wood fences shall be pressure treated 4x4 or match existing post size, whichever is larger. New wood posts shall have new post caps matching existing caps. The Contractor shall install the new posts for relocated chain link fence per the chain link fence post detail on the Plans.

8-12.4 Measurement

(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

Chain link fence with vinyl coating will be measured by the linear foot of completed fence, along the ground line, exclusive of openings.

Remove, protect and relocate wood fence will be measured by the linear foot of reinstalled fence (including gates) along the ground line, exclusive of openings.

8-12.5 Payment

(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

The unit contract price per linear foot for “Remove, Protect and Reinstall Wood Fence” shall include all costs for furnishing the necessary materials, labor, equipment and tools to relocate the fence including, but not limited to, remove and wastehaul the existing fence posts, construct the relocated fence, and gate(s), new concrete footings, new posts and caps, and all hardware for a complete installation.

The unit contract price per linear foot for "Chain Link Fence, Type ____, w/Vinyl Coating" shall include all costs for furnishing the necessary materials, labor, equipment and tools to construct the fence including, but not limited to, new concrete footings, posts, bars, tension wire, chain link fabric, vinyl coating, touchup paint, and all hardware for a complete installation.

8-14 CEMENT CONCRETE SIDEWALKS

8-14.3 Construction Requirements

(November 21, 2009 G&O GSP)

This Section is supplemented with the following:

Any sidewalk damaged, defaced, cracked, chipped, or determined to be of poor workmanship, in the opinion of the Contracting Agency, shall be removed, wastehauled, and replaced by the Contractor at the Contractor's expense. Damaged sidewalk shall be removed at a construction or expansion joint; sawcutting will not be allowed. Sacking, grinding, or spot repaired shall not be considered an acceptable means for repairing unacceptable sections. The Contractor shall further provide verbal and written notice (door hanger) to property owners abutting the Project identifying restricted use of these facilities, etc. This notice must be provided 1 week prior and again 1 day prior to the work being performed.

8-14.4 Measurement

(December 14, 2016 G&O GSP)

This Section is supplemented with the following:

Measurement of curb ramps will be by the unit for each completed ramp, regardless of ramp type.

8-14.5 Payment

(December 14, 2016 G&O GSP)

This Section is supplemented with the following:

The unit contract price per square yard for "Cement Conc. Sidewalk" shall include all costs of furnishing all materials, labor, tools, and equipment necessary for a complete installation including forming, furnishing and placing concrete, jointing and joint filler, curing, material testing, temporary barricades, and any other items required for a complete installation in good working order and in accordance with the Plans, the Specifications, and as required in the field. It shall also include protecting all sidewalks from damage until accepted by the Contracting Agency.

The unit contract price per each for "Cement Conc. Curb Ramp" shall include all costs of furnishing all materials, labor, tools, and equipment necessary to furnish and construct the curb ramp, regardless of type, including forming, furnishing and placing concrete, truncated domes, curbing for ramps (at sides or back of ramps), jointing, and joint filler, curing, material testing, and temporary barricades as necessary.

The unit contract price per each for “Cement Conc. Stairs, Location ____” shall include all costs of furnishing all materials, labor, tools, and equipment necessary to furnish and construct the stairs, including forming, furnishing and placing concrete, rebar, jointing, and joint filler, curing, temporary barricades as necessary.

8-15 RIPRAP

8-15.4 Measurement

(November 24, 2010 G&O GSP)

This Section is supplemented with the following:

Hand Placed Riprap will be measured by the ton of riprap placed as shown on the Plans or directed in the field by the Engineer.

8-15.5 Payment

(November 24, 2010 G&O GSP)

This Section is supplemented with the following:

The unit contract price per ton for “Hand Placed Riprap” shall include all costs of furnishing all labor, tools, equipment, and materials to complete the placement of riprap spalls as indicated on the Plans.

8-18 MAILBOX SUPPORT

8-18.3 Construction Requirements

(June 10, 2009 G&O GSP)

This Section is supplemented with the following:

During construction mailboxes and/or paper boxes shall be moved to a temporary location where their usefulness will not be impaired. Posts shall be removed from their fixed location and be placed in a bucket or other suitable container and filled with sand, gravel, or other suitable means to hold them in place. Existing posts shall be cut to length as necessary such that the height from the ground to the bottom of the box is 3'-6". Temporary box locations shall be located such that delivery can be accomplished from within the delivery vehicle and shall be maintained at all times. Mailbox relocations shall be in accordance with U.S. Postal Service requirements.

8-18.5 Payment

(June 10, 2009 G&O GSP)

This Section is supplemented with the following:

“Mailbox Support, Type ____,” per each.

The unit contract price per each for “Mailbox Support, Type ____,” shall be full pay for all material, equipment, labor, and tools required to maintain temporary boxes

and to fully relocate the existing boxes including post cutting, temporary buckets, sand, gravel, new posts and hardware tubing, concrete, and as further detailed on the Plans.

8-19 LIGHTWEIGHT GEOSYNTHETIC FILL

(******)

8-19.1 Description

This work consists of furnishing and placing expanded polystyrene, in accordance with the details shown in the plans and these specifications.

8-19.2 Materials

Manufacturer with a minimum of 10 years documented experience in the manufacture of lightweight, geosynthetic fill.

Lightweight geosynthetic fill may be fabricated using material with recycled content provided the physical properties of Table 1 are met. Unless the project dictates otherwise, the blocks shall have a height of at least .91 m (36 inches), a width of at least 1.22 m (48 inches), and length of at least 2.44 m (96 inches). All blocks shall be within tolerances of 0.5% of respective height, width and length dimensions. Additional field and/or shop trimming and cutting will be required as necessitated by the geometry of the fill being constructed.

Lightweight geo-synthetic fill blocks shall be EPS Geofoam or equal with the following physical properties:

Table 1 – Physical Properties of Lightweight Geosynthetic Fill

TYPE - ASTM D6817	EPS22 or equal	EPS29 or equal	EPS39 or equal
Density, min., kg/m 3, (lb/ft3)	21.6 (1.35)	28.8 (1.80)	38.4 (2.40)
Compressive Resistance @ 1% deformation, min., kPa (psi)	50 (7.3)	75 (10.9)	103 (15.0)
Flexural Strength min., kPa (psi)	276 (40.0)	345 (50.0)	414 (60.0)
Elastic Modulus, min., kPA (psi)	5000 (730)	7500 (1090)	10300 (1500)
Oxygen Index, min., volume %	24.0	24.0	24.0

Lightweight geosynthetic fill should be considered combustible and should not be exposed to open flame or any source of ignition. Material shall be manufactured using modified expanded polystyrene.

Each lightweight geosynthetic fill block shall be marked with the manufacturer's identification, and type.

8-19.3 Submittals

Prior to the start of work the Contractor shall submit for approval the following:

e. A plan sheet showing a profile and section view of the proposed embankment. The drawing shall clearly indicate the size, type, location and orientation of all lightweight geo-synthetic fill blocks.
f. The location and type of connectors.
g. Proposed ballasting or guying techniques.
h. Proposed placement methods.

Prior to the delivery of the EPS Geofoam blocks, the Contractor shall furnish the Engineer with a copy of manufacturer's test reports or a third party's certified test report showing that the lightweight geosynthetic fill blocks meet the physical properties and standards listed above in Table 1.

The Contractor shall submit to the Engineer a Manufacturer's Certificate of Compliance for the first 76 m^3 (100 yd^3) and for every 1147 m^3 (1500 yd^3) thereafter before the Geofoam is delivered to the site.

The Certificate of Compliance shall include current inspection reports showing that the lightweight geosynthetic fill manufacturer is in compliance with a UL follow-up service program for both flame and physical properties. In addition, computer generated stress-strain data and the accompanying curves shall be produced from compressive testing and supplied to the Engineer. The curves and/or data shall clearly indicate the stress at 1% strain and the modulus of elasticity.

8-19.4 Protection

The Contractor shall prevent damage to the lightweight geosynthetic fill blocks during delivery, storage, and construction. Prior to delivery of blocks fill to the project site, the Contractor shall review and be thoroughly knowledgeable with the manufacturer's care and handling recommendations. Any block that is exposed to sun light for more than six months shall be covered with an opaque material to prevent ultraviolet light degradation.

The Contractor shall protect the blocks from: (1) Organic solvents such as acetone, benzene, and paint thinner; (2) Petroleum based solvents such as gasoline and diesel fuel; (3) Open flames.

Placement of embankment soil cover material will require special procedures and careful selection of appropriate construction equipment to prevent damage to the Geofoam fill. No heavy construction equipment or vehicles shall be allowed directly on the lightweight geosynthetic fill blocks.

Any damage to the lightweight geosynthetic fill blocks resulting from the Contractor's vehicles, equipment or operations, shall be replaced by the Contractor.

Damage to lightweight geosynthetic fill shall be corrected as follows:

a. Slight damage less than .0283 m^3 (1 ft^3) may be filled with sand.

b. Blocks with damage exceeding 1ft^3 shall be replaced with blocks meeting this specification.

8-19.5 Subgrade Preparation

The grade on which the lightweight geosynthetic fill will be placed shall be graded to the elevations shown in the plans. The finish-grade shall be smooth and free from holes and protruding objects. Place subgrade as shown on the Plans.

8-19.6 Placement

Lightweight geosynthetic fill shall be placed to the lines and grades shown in the plans and as directed by the Engineer. The surface of a layer of blocks to receive additional blocks shall be constructed with a variation in surface tolerance of no more than 15 mm (0.05 feet) in any 3 m (10 ft) interval. All blocks shall accurately fit relative to adjacent blocks. No gaps greater than 20 mm (0.07ft) will be allowed on vertical joints.

The finished surface of the blocks immediately beneath pavement sections shall be constructed to within the tolerance of zero to minus 60 mm (0.20 ft) of the indicated grade.

The finished surface of the blocks on side slopes that receive soil cover shall be constructed to within a tolerance of plus 90 mm (0.30 ft) to minus 90 mm (0.30 ft) of the indicated grade.

Blocks placed in a row in a particular layer shall be offset .6 m (2.0 ft) relative to blocks placed in adjacent rows of the same layer as shown on the plans. In order to avoid continuous joints, each subsequent layer of blocks shall be rotated on the horizontal plane 90 degrees from the direction of placement of the previous layer placed.

Blocks shall be cut using a hot wire.

Because of the light unit-weight of the geofoam fill, it is the Contractor's responsibility to provide temporary weighting and/or guying as necessary until all the blocks are built into a homogeneous mass, and the pavement section as well as any soil cover are in place.

Embankment over the side slopes of the blocks shall be placed starting at the bottom of the slope in such a manner to prevent damage to the blocks. Finished blocks on side slopes shall have a minimum of 0.61 m (2 ft) embankment cover.

8-19.7 Measurement

“Lightweight Geosynthetic Fill” will be measured by the in-place volume in cubic yards. No credit will be given for wasted material.

8-19.8 Payment

“Lightweight Geosynthetic Fill,” per cubic yard

The unit contract price per cubic yard of “Lightweight Geosynthetic Fill” shall include all equipment, labor and materials necessary to furnish and install the expanded polystyrene blocks according to the plans and this specification.

8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, INTELLIGENT TRANSPORTATION SYSTEMS, AND ELECTRICAL

8-20.1 Description

(******)

This Section shall be supplemented with the following:

This work shall also consist of furnishing and installing all materials, labor, tools and equipment necessary to complete in place the rectangular rapid flashing beacons (RRFB's) including, but not limited to, flashing signals, poles, foundations, pedestrian push button assemblies, signing, backfill, solar panels, junction box, conduit and wire as detailed on the Plans.

8-20.2 Materials

(******)

This Section is supplemented with the following:

Solar Self-Contained Rectangular Rapid Flashing Beacon (RRFB)

Overview

Each Rectangular Rapid Flashing Beacon (RRFB) shall consist of a self-contained solar engine that houses the charge controller, flash controller, on-board user interface, wireless communications, batteries, and solar panel. Each RRFB shall include either one or two light bars. The RRFB shall conform to all provisions of the MUTCD, Interim Approval IA-21 including WW+S flash pattern. The RRFB shall be pre-wired to the maximum extent possible.

Mechanical Specifications

The solar engine shall be constructed from aluminum with an integrated solar panel. All batteries and electronics shall be mounted in the solar engine, with no external control cabinet or battery cabinet required.

The solar engine shall not exceed 15" in height from bottom of adapter fitting to top of solar panel. The depth of the solar engine shall not exceed 4".

The overall weight of the solar engine assembly (including two batteries but not including light bars or pushbutton) shall not exceed 20 lbs. (9.1 kg).

The solar engine shall be supplied with a fixed tilt angle of 45 degrees and shall be able to be oriented toward the equator with no additional mounting hardware.

Access to the interior of the solar engine shall be provided by a lid that is hinged on the bottom edge and is fitted with a foam gasket. The lid shall have a lockable latch.

The solar engine shall be vented to provide cooling of the battery and electronic system. The vents shall be screened to prevent ingress by insects and debris.

Fasteners shall be stainless steel.

Light Bars

The light bars shall be current-driven LED strings without active electronics. The LEDs shall be driven by pulse-width modulated fixed current. The light bar shall be Carmanah part number 87668.

The light bar housing shall be constructed from aluminum and shall have the approximate dimensions: 24" L x 1.5" D x 4.5" H (61.0 cm L x 3.8 cm D x 11.4 cm H).

Each light bar shall conform to all provisions of the MUTCD and FHWA requirements.

Each of the two modules in a light bar shall have 8 LEDs and shall be purpose-built by the manufacturer of the RRFB including the optics. The optics shall be premium, UV-resistant polycarbonate.

Each end of a light bar shall include a side-emitting pedestrian confirmation light composed of a single LED. Users shall have the option of using both confirmation lights for median applications, or covering one confirmation light with an included sticker for side-of-road applications.

The light bar shall be mounted to the post or pole using a separate bracket assembly to facilitate mounting two light bars back-to-back (bi-directional) and to allow the light bar(s) to rotate horizontally for aiming.

The light bar bracket shall be constructed from galvanized or stainless steel and shall have both banding and bolting mounting options and shall be able to be mounted to all specified pole types.

The light bar assembly shall open for access to the wiring connections for the LED modules. LED modules shall be rated to NEMA 3R.

Light bar wiring harnesses shall be included.

Fasteners shall be stainless steel.

Mounting

Mounting adapter hardware for the RRFB shall be 4" - 4.5" Diameter Round Post Mount

Mounting shall not require specialized tools.

Configuration

The solar engine shall house an auto-scrolling LED on-board user interface that provides on-site configuration adjustment, system status and fault notification.

The user interface shall provide a display of four alphanumeric characters and three control buttons to navigate and change settings and activate functions.

When editing the configuration, the user interface will flash the display indicating it is ready to accept editing and will flash the display rapidly 3 times to indicate the setting change has been accepted.

The flash duration shall be adjustable in-the-field from 5 to 60 seconds in one second increments, 60 to 1,200 seconds in 60-second steps, and 3,600 seconds. Default flash duration shall be 20 seconds.

The flash rate shall be the wig-wag plus simultaneous (WW+S) providing 75 flashing sequences per minute. The flash rate of each individual RRFB indication, as applied over the full flashing sequence, shall not be between 5 and 30 flashes per second to avoid frequencies that might cause seizures.

The system shall provide configurable nighttime intensity settings ranging from 10% to 100% of daytime intensity.

The system shall be capable of enabling or disabling ambient brightness auto-adjustment. This feature allows the system to provide optimal output brightness in relation to ambient light levels while always maintaining adherence to SAE J595 Class I specifications. If enabled, the ambient brightness auto-adjustment shall adjust output to a range between 50% and 100% of daytime intensity.

The user interface shall provide viewing and/or programming access for the following:

- Activation duration (5 to 60, 60 to 1,200, or 3,600 seconds)
- Digital output that is active during the flashing cycle that allows the control of external devices such as crosswalk illumination. Digital output shall be configurable for night operation only or operation day or night.
- Radio channel (choice of 1 to 14)
- Radio power on/off status
- Radio equipped status
- Daytime intensity
- Flash pattern
- Night intensity setting
- Adjustment for ambient daytime brightness
- Self-Test/BIST (Built-In Self-Test) including the detection of shorts or open circuits in the fixture outputs

- Battery status – general description and actual battery voltage
- Day or night status, as determined by dedicated photosensor not solar panel output
- Solar panel voltage
- Automatic Light Control (ALC). If this safety feature is enabled, it allows the RRFB to temporarily reduce the intensity of the light bars to maintain energy equilibrium. The user interface shall report the amount of dimming being applied in the range of 10 percent to 100 percent.
- Daily activations averaged over 90 days
- Pushbutton detection
- Firmware version number

Activation duration, night intensity setting and adjustment for ambient daytime brightness shall be automatically broadcast to all RRFBs in the system when changed in one RRFB.

Solar Panel System

The solar engine shall include one 18V nominal solar panel rated at 15 watts with bypass diode. Nominal voltage of the RRFB shall be 12 volts. The solar panel shall be no larger than the footprint of the solar engine enclosure.

Electrical connections on the back of the solar panel shall be contained with an enclosure that prevents accidental contact with either of the power leads.

The solar charging system shall use maximum power point tracking (MPPT).

Battery System

The solar engine shall house two 7 amp-hour 12-volt nominal sealed valve-regulated AGM lead-acid maintenance-free batteries. Each battery shall be equipped with a fast-acting 7A cartridge fuse on the positive lead.

The battery charging system shall be 3-stage and incorporate temperature-compensation to prevent battery overcharging in hot weather.

Batteries, in conjunction with recommended RRFB performance, shall be designed for a demonstrable service life of 5 years.

The operating temperature range of the battery shall be -40° to 140°F (-40° to 60°C).

Batteries shall have quick connections to facilitate installation and be readily available from multiple suppliers and non-proprietary.

Batteries shall be supported by rubber bumpers and be secured in place with straps.

Operational Specifications

The RRFB shall meet the minimum photometric specifications of the Society of Automotive Engineers (SAE) standard J595 Class I dated January 2005. A photometric report by a certified third-party testing laboratory shall be provided to demonstrate compliance with J595.

The color of the yellow light bar indications shall meet the specifications of SAE standard J578 (Color Specification) dated December 2006.

The RRFB system shall have the capacity to meet a minimum array-to-load (ALR) of 1.2 while meeting the specified daily activations and flash duration year-round using the applicable peak sun hours insolation available at the installation location. Refer to Section 11 Solar Simulations for details on insolation data sources.

The controller shall be able to support up to 1.4 amps combined current through the RRFB fixtures simultaneously.

The system shall use a dedicated light sensor to detect night and day states and apply any optionally enabled intensity adjustments.

Radio System

The radio system shall operate at 2.4GHz.

Upon detection of a pushbutton press, an RRFB will broadcast an activation to all other nearby RRFBs sharing the same channel.

The RRFB shall have the capability to activate other RRFBs by wireless communications within 1,000 feet (304 meters).

The RRFB shall have a minimum of 14 unique channels that can be configured on-site to avoid inadvertent activation of nearby systems.

The antenna shall be a low-profile “button” shape that cannot be bent or broken by vandals.

Activations

The system shall be capable of activation by pedestrian pushbutton.

The pedestrian pushbutton shall be ADA compliant and have these accessibility features:

- Activation area of 2” minimum across in at least one direction
- Shall be operable with a closed fist
- Shall be operated with a maximum of 3.5lbs (15.5N)
- Shall have a visual contrast with the body background of at least 70 percent
- Visible indicator for button press confirmation
- Audible locator tone

A solar simulation shall be provided to verify the pushbutton load can be supported by the RRFB for reliable year-round operation. The pushbutton shall be self-contained with no external controller. The pushbutton shall have wireless Bluetooth communication for changing volume and other settings via companion smartphone application.

All RRFBs in the system shall initiate activation simultaneously within 150ms of activation.

If an additional activation occurs while the system is activated, the flash duration shall reset. For
example, with the flash duration set to 20 seconds, if an additional activation occurs after the RRFB has been activated for 15 seconds the RRFB will continue for an additional 20 seconds, or 35 seconds in total.

If the RRFB has ceased its flashing cycle, any subsequent activation shall activate the RRFB immediately regardless of how recently the RRFB ceased operation.

Pushbutton wiring harnesses shall be included.

Solar Simulations

Detailed solar simulations shall be provided as evidence that the RRFB is capable of the claimed performance at a specific location. Solar simulations shall be composed of three calculations: Energy Balance, Array-to-Load Ratio (ALR), and Autonomy. The manufacturer or bidder shall provide a detailed analysis of these three calculations in an “Energy Balance Report” (EBR).

Monthly average sunlight (insolation), night length and temperature data for a specific, declared location shall be from recognized public sources such as the NASA Atmospheric Sciences Data Center. All sources shall be cited exactly and accessible online without cost to allow verification of the data.

Energy Balance

During a normal 24-hour cycle of operation, an RRFB will take energy in from the sun and consume energy through the flashing of the light bars, radio communication, and general quiescent power draw. Energy Balance refers to the evaluation of these energy values to determine overall system sustainability and resistance to variances in sunlight and activation load.

Energy Balance compares Energy-In and Energy-Out. Calculations shall be performed for the “worst month” of the year where worst month is determined by the lowest value of Energy-In divided by Energy-Out.

<u>Energy-In</u>

Energy-In is the total amount of sunlight energy in watt-hours *available* to the RRFB over a 24-hour period. Energy-In is available to operate the

RRFB, charge the batteries, or both. Energy-In shall be determined as follows:

- Insolation X panel wattage X shading X charging efficiency X battery charge acceptance
    - The energy from the solar panel shall be based on available solar radiation at the installation location for the panel's inclination angle. The solar radiation (insolation) values used shall be for the worst-case month of the calendar year.
    - Shading from nearby trees, buildings, or other structures unique to a particular location are to be factored-in and the calculations shall clearly show and justify the de-rating of the solar panel energy input. A photograph showing the sun's path and obstructions it encounters shall be included.
    - Batteries shall be returned to full charge by sunset at the end of each day.

Energy-Out

Energy-Out is the total amount of energy in watt-hours consumed by the RRFB in a 24-hour period of normal operation.

Energy-Out is the sum of quiescent and operating loads, measured in watt-hours, in all circuitry over 24 hours with an operating capacity of 300 20-second activations, including:

- Controller quiescent draw (daytime and between flashes).
- Wireless quiescent draw calculated over 24 hours.
- Operating load of pushbutton at rated operating capacity per activation (where applicable).
- Operating load of light bars including pedestrian indicators at rated intensity per activation. The number of light bars and their electrical load details (voltage, current and power when lit) shall be clearly indicated.
- Energy adjustments due to LED drive circuit efficiency.
- The simulations shall clearly detail the flash pattern being used and calculate the duty cycle of the pattern.
- Calculations shall assume the ratio of day to night activations is 9:1.

ALR (Array-to-Load Ratio)

System Array-to-Load (ALR) ratio shall be calculated as:

- Daily Available Energy-In divided by daily Energy-Out, as defined above.

Solar simulations shall be calculated demonstrating a minimum Array-to-Load (ALR) ratio of 1.2:1 (1.2).

Autonomy

Autonomy is the number of days that the RRFB can continue to operate normally in the absence of any solar charging. Autonomy shall be calculated as follows:

- (Nominal battery capacity de-rated for temperature minus battery capacity unavailable due to Low Voltage Disconnect) divided by (daily total energy consumption at the specified number and duration of activations)

RRFB autonomy shall be determined based on regional requirements – at a minimum of 7 consecutive days.

Environmental Testing
The RRFB solar engine and light bars shall be rated to a minimum of NEMA 3R.

Packaging
Packaging shall consist of only recyclable corrugated cardboard and soft plastic bags.

Qualifications
The RRFB shall be FCC certified to comply with all 47 CFR FCC Part 15 Subpart B Emission requirements.

Manufacturer shall provide a 5-year Limited Warranty, with the exception of the batteries which shall be covered by a 1-year warranty.

The Manufacturer shall be ISO 9001 certified.

8-20.4 Measurement
(******)

This Section is supplemented with the following:

Measurement of RRFB Unit, Complete will be per each RRFB unit installed and approved.

8-20.5 Payment
(******)

This Section is supplemented with the following:

The lump sum and unit prices for the items listed below shall be full compensation for all costs involved in furnishing all labor, materials, tools, and equipment necessary or incidental to complete the installation of the described item in accordance with the Plans and these Specifications.

"RRFB Unit, Complete," per each.

Payment for "RRFB Unit, Complete" shall include all costs associated with furnishing, testing, and installing the complete and operable RRFB system, foundation and all associated peripheral equipment.

8-21 PERMANENT SIGNING

8-21.3(4) Sign Removal

(January 4, 2010 G&O GSP)

This Section is supplemented with the following:

The Contractor shall obtain approval from the Engineer prior to removing existing signs.

8-21.3(5) Sign Relocation

(January 4, 2010 G&O GSP)

This Section is supplemented with the following:

All existing signs not designated for permanent removal that are damaged or removed shall be replaced by the Contractor at no additional expense to the Contracting Agency.

Existing signs shall be temporarily relocated by the Contractor, as required, to portable sign stands, subject to the approval of the Engineer. When temporarily installed on posts, the signs shall be located as near as practical to their permanent locations and shall have a minimum vertical clearance above the pavement in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

All portable sign stands shall be designed to rigidly support the sign in position without creating a hazard to the motorist. Portable sign stands shall be furnished by the Contractor and upon completion of the work shall remain the property of the Contractor and shall be removed from the Project.

8-21.5 Payment

(November 24, 2010 G&O GSP)

This Section is supplemented with the following:

"Permanent Signing," per lump sum.

The lump sum contract price for "Permanent Signing" shall be full pay for all material, labor, tools, and equipment necessary to remove, protect, and reinstall existing signs including posts, concrete anchors, and fasteners, as specified herein and shown on the Plans, as well as furnishing and installing all new permanent signs as may be specified on the Plans.

8-22 PAVEMENT MARKING

8-22.1 Description
(June 16, 2006 G&O GSP)

This Section is supplemented with the following:

Pavement markings shall conform to Section 8-22 of the Standard Specifications, and the latest edition and amendments thereto of the Manual on Uniform Traffic Control Devices (MUTCD) as adopted by the State of Washington, and shall be constructed as shown in the Plans except as modified herein.

The Contractor shall be responsible for all traffic control required to place and protect pavement marking material, as outlined in Sections 1-07.23 and 1-10 of the Standard Specifications and these Special Provisions.

8-22.2 Materials
(November 1, 2011 G&O GSP)

This Section is supplemented with the following:

Plastic pavement marking materials shall be Type A – liquid hot applied thermoplastic unless indicated otherwise in the Contract Documents.

Patents
The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the work, and agrees to indemnify and save harmless the Contracting Agency and its duly authorized representatives from all suits of law or action of every nature for, or on account of, the use of any patented materials, equipment, device, or processes.

Acceptance
The Contractor shall be responsible for supplying material that meets aforestated material and testing requirements. The Contractor shall supply certification that the pavement marking material meets the above specifications.

8-22.3 Construction Requirements
(November 24, 2010 G&O GSP)

This Section is supplemented with the following:

In addition to the requirements of Sections 8-22.3(2) and 8-22.3(3), the application and surface preparation shall conform to the manufacturer's recommendations.

The Contractor shall provide the Engineer with two copies of the manufacturer's recommendations for installation.

In all cases, the product manufacturer's recommended application procedures shall be adhered to. When no such procedures have been published, workmanship shall be governed by these Special Provisions and the Standard Specifications.

After cleaning of areas to receive pavement markings, the areas shall pass inspection of the Engineer prior to application of the material or the primer coat.

Reflectorized beading as stated in Section 8-22.3(3) of the Standard Specifications shall be provided with all pavement markings.

8-22.3(6) Removal of Pavement Markings
(November 21, 2009 G&O GSP)

This Section is supplemented with the following:

All Type D pavement markings and raised pavement markers shall be removed prior to any HMA overlay.

Painting is not an acceptable method for obliteration or removal of pavement markings.

8-24 ROCK AND GRAVITY BLOCK WALL AND GABION CRIBBING

8-24.2 Materials
(January 4, 2010 G&O GSP)

This Section is supplemented with the following:

Rock Walls
Rock used for walls shall be sound ledge rock of a uniform color and obtained from a commercial quarry. Rock is to be free from seams or loose stratification. The rock shall have a density of at least 145 pounds per cubic foot.

Modular Block Walls
The face of the wall shall consist of a rock-face type appearance. Modular block units shall be Keystone brand straight face series, or Contracting Agency approved equal. Color shall be concrete gray. The depth of each unit block shall be a minimum of 21-1/2 inches. Unit blocks shall allow concave and convex curves per wall alignments indicated on Plans.

Modular block units shall have minimum 28-day compressive strength of 20 Mpa in accordance with ASTM C90. The concrete shall have adequate freeze-thaw protection with a maximum adsorption rate of 8 percent.

Exterior dimensions shall be uniform and consistent. Maximum dimensional deviations shall be 0.20 inches (not including textured face).

8-24.3(2) Gravity Block Wall

(January 7, 2013 G&O GSP)

This Section is supplemented with the following:

Excavation

Excavation shall be in accordance with the requirements of Section 2-09 and in conformity to the limits and construction stages shown in the Plans.

The Contractor shall restrict the excavation limits to the length of wall that can be constructed in one-day's work. Excavation beyond the limits that can be completed in one day's work shall be permitted if the Contractor can demonstrate that the excavation will remain stable until the wall is completed.

Slopes above the wall shall be established prior to any excavation for the wall.

Foundation Preparation

The foundation for the wall shall be graded as shown in the Plans.

Prior to placement of the concrete units, the foundation, if not in rock, shall be compacted. Any foundation soils found to be unsuitable shall be removed and replaced as provided for under Section 2-09.3(1) C. The leveling pad shall be compacted to 95 percent of modified Proctor.

Installation

The first course of block units shall be placed on the prepared leveling pad with the front edges tight together. The Contractor shall install the units level and the alignment as shown on the Plans. The units shall be in full contact with the leveling pad. Proper care shall be taken to develop straight lines and smooth curves. All cavities in and around the block shall be backfilled. Backfill front and back of entire bottom row to firmly lock in place. All excess material shall be swept from tops of units. Install next course of wall units on top of base row. The blocks shall be aligned according manufacturer's recommendations. The Contractor shall check each block for proper alignment and level. Backfill remaining space behind second course and compact to 95 percent of standard Proctor. Repeat process for each succeeding course. No more than two courses of block shall be dry stacked prior to placement of unit core fill and backfill. Install cap units with construction adhesive at the wall locations indicated on the Plans.

Backfill

Material shall be as specified in the Plans. Only hand-operated compaction equipment shall be allowed within 3 feet of the wall face. Sudden braking and sharp turning shall be avoided.

The backfill shall be compacted to achieve 95 percent modified Proctor. The Contractor shall be fully responsible for achieving the specified compaction requirements. The Engineer may direct the Contractor to remove and correctly

replace any soil or materials found to be not in compliance with these specifications, at the Contractor's expense.

8-24.4 Measurement

(June 16, 2006 G&O GSP)

Delete this Section and replace with the following:

Measurement for Rock Wall will be per square foot as measured on a vertical face (one side only) from top of rockery to bottom of rockery, including the key (excluding height of any wall cap, leveling pad, etc.).

Measurement for Modular Block Wall will be per square foot as measured on a vertical face (one side only) from top of wall to bottom of wall (including wall key and excluding cast-in-place wall caps, leveling pad, etc.).

8-24.5 Payment

(January 7, 2013 G&O GSP)

Delete this Section and replace with the following:

Payment will be made in accordance with Section 1-04.1 for each of the following bid items that are included in the Proposal:

The unit contract price per square foot for "Rock Wall" shall be full pay for furnishing all material, labor, tools, and equipment necessary to construct the rock wall including, but not limited to, excavation, shoring, preparing the subgrade, furnishing and installing the rock wall, drain pipe, drain rock, geotextile fabric for drain pipe, and wastehaul for a complete installation.

The unit contract price per square foot for "Modular Block Wall" shall be full pay for furnishing all material, labor, tools, and equipment necessary to construct the modular block wall including, but not limited to, excavation, shoring, preparing the subgrade, furnishing and installing leveling pad, modular blocks (including modular caps and construction adhesive), unit fill, drain pipe, drain rock, geotextile fabric for drain pipe, and wastehaul for a complete installation.

Gravel backfill will be paid for separately under the unit contract item "Gravel Backfill for Walls."

8-26 PUBLIC FURNITURE

8-26.1 Description

This work consists of furnishing and constructing furniture for use by the public.

8-26.2 Materials

Benches shall be constructed using recycled plastic material. Benches shall be 5 feet long, 26.25 inches wide and 33.25" height. The Contracting Agency shall approve the

color of the bench prior to ordering. Benches shall be anchored to the concrete sidewalk with stainless steel hardware.

8-26.5 Payment

"Park Bench," per each.

The unit contract price per each for "Park Bench," shall be full pay for all material, equipment, labor, and tools required to furnish and install this item to include the necessary hardware to permanently attach the bench to the sidewalk to deter theft.

PART 6

APPENDIX

APPENDIX A

KING COUNTY PREVAILING WAGE RATES

APPENDIX A

WASHINGTON STATE PREVAILING WAGE RATES

To find applicable wage rates please follow the following steps:

1. Access the L & I website at: http://www.lni.wa.gov/TradesLicensing/PrevWage/WageRates/default.asp
2. Look up applicable wages/benefit codes using the bid submittal deadline for this project
3. This project is located in King County.
4. A copy of the applicable prevailing wage rates for this project are available for review at Newcastle City Hall, 12835 Newcastle Way, Suite 200, Newcastle, WA 98056-1316. Upon request, a hard copy will be mailed to the requesting bidder.

APPENDIX B

TEMPORARY CONSTRUCTION PERMITS

CITY OF NEWCASTLE, KING COUNTY, STATE OF WASHINGTON
SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS

TEMPORARY CONSTRUCTION PERMIT

Property Address: 11408 SE May Creek Park Drive, Newcastle, Washington

Property Description: Sonvic Slopes #1 Add

Property Owner: Stepanova, Nataliya
Mailing Address: 11408 SE May Creek Park Drive, Newcastle, WA 98056

The undersigned, Nataliya Stepanova, and _____, their heirs, successors and assigns hereinafter together referred to as "GRANTOR(s)", for and in consideration of improvements to SE May Creek Park Drive, do hereby convey and grant to the City of Newcastle, a temporary construction permit in, along and across the Grantor's property, for the purpose of constructing certain roadway improvements per City Standards and approved Plans (Contract Plans), and do further grant the use of immediately adjacent property for the purpose of performing this work, including excavating, compacting, shaping and grading for sidewalk and/or driveway on street sections, blending new improvements into adjacent private property by shaping, grading, and restoring the outside surface, to include related and miscellaneous construction items including dust control, as necessary, all costs of the gate of which shall be borne by the City. I give my permisin to work only behind my property gates and wood fence.

The GRANTOR hereby and the City, by accepting and signing this document, mutually covenant and agree as follows:

(1) City shall upon completion of the work, remove all debris and restore any disturbed surface of the above described property as was caused by City's licensed, bonded, and insured Contractor, to a condition equal to or better than that which existed at the date of this agreement.

(2) Access to GRANTOR'S property shall be maintained at all times during the City's SE May Creek Park Drive Non-Motorized Improvement project.

(3) This Temporary Construction Permit shall terminate upon the City's formal acceptance of the completion of this Project, or by December 31, 2022, whichever shall first occur.

DATED THIS 03 DAY OF 24, 2022.

Nataliya Stepanova

LEGAL OWNER

My property doesn't have entry without permission. I have a business Adult Family Home and I have customers with Alzheimers disease. I don't give my permission to touch my wood fence with gate which are separate my property from neighbours and street. My contact information such as phone number (425) 736-6523

Sincerely, Nataliya Stepanova 03/24/2022

CITY OF NEWCASTLE, KING COUNTY, STATE OF WASHINGTON
SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS

TEMPORARY CONSTRUCTION PERMIT

Property Address: 11424 SE May Creek Park Drive, Newcastle, Washington

Property Description: Sonvic Slopes #1 Add

Property Owner: Martin, James J
Mailing Address: 11424 SE May Creek Park Drive, Newcastle, WA 98056

The undersigned, James J Martin, and _____, their heirs, successors and assigns hereinafter together referred to as "GRANTOR(s)", for and in consideration of improvements to SE May Creek Park Drive, do hereby convey and grant to the City of Newcastle, a temporary construction permit in, along and across the Grantor's property, for the purpose of constructing certain roadway improvements per City Standards and approved Plans (Contract Plans), and do further grant the use of immediately adjacent property for the purpose of performing this work, including excavating, compacting, shaping and grading for sidewalk and/or driveway sections, blending new improvements into adjacent private property by shaping, grading, and restoring the surface, to include related and miscellaneous construction items including dust control, as necessary, all costs of which shall be borne by the City.

The GRANTOR hereby and the City, by accepting and signing this document, mutually covenant and agree as follows:

(1) City shall upon completion of the work, remove all debris and restore any disturbed surface of the above described property as was caused by City's licensed, bonded, and insured Contractor, to a condition equal to or better than that which existed at the date of this agreement.

(2) Access to GRANTOR'S property shall be maintained at all times during the City's SE May Creek Park Drive Non-Motorized Improvement project.

(3) This Temporary Construction Permit shall terminate upon the City's formal acceptance of the completion of this Project, or by December 31, 2022, whichever shall first occur.

DATED THIS 25 DAY OF March, 2022.

James J Martin

LEGAL OWNER

CITY OF NEWCASTLE, KING COUNTY, STATE OF WASHINGTON
SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS

TEMPORARY CONSTRUCTION PERMIT

Property Address: 11432 SE May Creek Park Drive, Newcastle, Washington

Property Description: Sonvic Slopes #1 Add

Property Owner: Hale, Thomas E & Elizabeth
Mailing Address: 11432 SE May Creek Park Drive, Newcastle, WA 98056

The undersigned, THOMAS E. HALE, and ELIZABETH K. HALE, their heirs, successors and assigns hereinafter together referred to as "GRANTOR(s)", for and in consideration of improvements to SE May Creek Park Drive, do hereby convey and grant to the City of Newcastle, a temporary construction permit in, along and across the Grantor's property, for the purpose of constructing certain roadway improvements per City Standards and approved Plans (Contract Plans), and do further grant the use of immediately adjacent property for the purpose of performing this work, including excavating, compacting, shaping and grading for sidewalk and/or driveway sections, blending new improvements into adjacent private property by shaping, grading, and restoring the surface, to include related and miscellaneous construction items including dust control, as necessary, all costs of which shall be borne by the City.

The GRANTOR hereby and the City, by accepting and signing this document, mutually covenant and agree as follows:

(1) City shall upon completion of the work, remove all debris and restore any disturbed surface of the above described property as was caused by City's licensed, bonded, and insured Contractor, to a condition equal to or better than that which existed at the date of this agreement.

(2) Access to GRANTOR'S property shall be maintained at all times during the City's SE May Creek Park Drive Non-Motorized Improvement project.

(3) This Temporary Construction Permit shall terminate upon the City's formal acceptance of the completion of this Project, or by December 31, 2022, whichever shall first occur.

DATED THIS 26 DAY OF MARCH, 2022.

Thomas E. Hale
Elizabeth K. Hale
LEGAL OWNER

CITY OF NEWCASTLE, KING COUNTY, STATE OF WASHINGTON
SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS

TEMPORARY CONSTRUCTION PERMIT

Property Address: 11622 SE May Creek Park Drive, Newcastle, Washington

Property Description: Hillmans LK WN Garden of Eden #8 E 100 FT of S 1/2

Property Owner: Kane, Mae Lin & Kane, Jason Mic
Mailing Address: 11622 SE May Creek Park Drive, Newcastle, WA 98056

The undersigned, Jason Kane, and Mae Kane, their heirs, successors and assigns hereinafter together referred to as "GRANTOR(s)", for and in consideration of improvements to SE May Creek Park Drive, do hereby convey and grant to the City of Newcastle, a temporary construction permit in, along and across the Grantor's property, for the purpose of constructing certain roadway improvements per City Standards and approved Plans (Contract Plans), and do further grant the use of immediately adjacent property for the purpose of performing this work, including excavating, compacting, shaping and grading for sidewalk and/or driveway sections, blending new improvements into adjacent private property by shaping, grading, and restoring the surface, to include related and miscellaneous construction items including dust control, as necessary, all costs of which shall be borne by the City.

The GRANTOR hereby and the City, by accepting and signing this document, mutually covenant and agree as follows:

(1) City shall upon completion of the work, remove all debris and restore any disturbed surface of the above described property as was caused by City's licensed, bonded, and insured Contractor, to a condition equal to or better than that which existed at the date of this agreement.

(2) Access to GRANTOR'S property shall be maintained at all times during the City's SE May Creek Park Drive Non-Motorized Improvement project.

(3) This Temporary Construction Permit shall terminate upon the City's formal acceptance of the completion of this Project, or by December 31, 2022, whichever shall first occur.

DATED THIS 13th DAY OF April, 2022

Jason Kane
Mae Kane
LEGAL OWNER

CITY OF NEWCASTLE, KING COUNTY, STATE OF WASHINGTON
SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS

TEMPORARY CONSTRUCTION PERMIT

Property Address: 12048 SE May Creek Park Drive, Newcastle, Washington

Property Description: Eden Ridge

Property Owner: Wang, Shun & Jiafei Shao
Mailing Address: 12048 SE May Creek Park Drive, Newcastle, WA 98056

The undersigned, Shun Wang, and Jiafei Shao, their heirs, successors and assigns hereinafter together referred to as "GRANTOR(s)", for and in consideration of improvements to SE May Creek Park Drive, do hereby convey and grant to the City of Newcastle, a temporary construction permit in, along and across the Grantor's property, for the purpose of constructing certain roadway improvements per City Standards and approved Plans (Contract Plans), and do further grant the use of immediately adjacent property for the purpose of performing this work, including excavating, compacting, shaping and grading for sidewalk and/or driveway sections, blending new improvements into adjacent private property by shaping, grading, and restoring the surface, to include related and miscellaneous construction items including dust control, as necessary, all costs of which shall be borne by the City.

The GRANTOR hereby and the City, by accepting and signing this document, mutually covenant and agree as follows:

(1) City shall upon completion of the work, remove all debris and restore any disturbed surface of the above described property as was caused by City's licensed, bonded, and insured Contractor, to a condition equal to or better than that which existed at the date of this agreement.

(2) Access to GRANTOR'S property shall be maintained at all times during the City's SE May Creek Park Drive Non-Motorized Improvement project.

(3) This Temporary Construction Permit shall terminate upon the City's formal acceptance of the completion of this Project, or by December 31, 2022, whichever shall first occur.

DATED THIS 21st DAY OF March, 2022.

LEGAL OWNER

APPENDIX C

SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA

APPENDIX D

SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA FORMS
SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS (T-047)

These forms shall be completed in their entirety and submitted by the apparent two lowest Bidders to the City of Newcastle by 12:00 p.m. (noon) of the second business day following the bid submittal deadline.

Failure to submit and meet the requirements as stated in Section 1-02 of the Special Provisions shall be grounds for rejection of the bid. The City of Newcastle will be the sole judge in determining if the prospective contractor meets the minimum experience requirements.

Contractor:

Name: _____

Address: _____

Phone: _____

Contact Person: _____

2. Delinquent State Taxes

Instructions to Bidders: Check the appropriate box

☐ The Bidder does not owe delinquent taxes to the Washington State Department of Revenue.

☐ Alternatively, the Bidder does owe delinquent taxes to the Washington State Department of Revenue.

If the Bidder owes delinquent taxes, they must submit a written payment plan approved by the Department of Revenue, to the Contracting Agency.

_____ _____

(Date) (Signature)

_____

(Print Name)

_____

(Title)

3. Claims Against Retainage and Bonds:

Instructions to Bidders: Check the appropriate box

☐ The Bidder has not had claims against retainage and bonds in the 3 years prior to the bid submittal date.

☐ Alternatively, the Bidder has had claims against retainage and bonds in the 3 years prior to the bid submittal date.

If the Bidder has had claims against retainage and bonds in the 3 years prior to the bid submittal date, submit a list of public works projects completed during this period that have had claims against retainage and bonds and include name of Project, contact information for the Owner, a list of claims filed against retainage and/or payment bond for any of the projects listed; and a written explanation of circumstances surrounding each claim and the ultimate resolution of the claim.

_____ _____

(Date) (Signature)

_____

(Print Name)

_____

(Title)

4. Public Bidding Crime:

Instructions to Bidders: Check the appropriate box

☐ The undersigned certifies that the Bidder and/or its Owners have not been convicted of a crime involving bidding on a public works contract in the 5 years prior to the bid submittal date.

☐ Alternatively, the undersigned confirms that the Bidder and/or its Owners have been convicted of a crime involving bidding on a public works contract in the 5 years prior to the bid submittal date.

If the Bidder and/or its Owners have been convicted of a crime involving bidding on a public works contract, provide a written explanation identifying the date of the conviction and a description of the circumstances surrounding the conviction.

_____ _____

(Date) (Signature)

_____

(Print Name)

_____

(Title)

5. Termination for Cause/Termination for Default

Instructions to Bidders: Check the appropriate box

☐ The undersigned certifies that the Bidder has not had any public works contracts terminated for cause or terminated for default by a government agency in the 5 years prior to the bid submittal date.

☐ Alternatively, the undersigned confirms that the Bidder has had public works contracts terminated for cause or terminated for default by a government agency in the 5 years prior to the bid submittal date.

If the Bidder has had any public works contracts terminated for cause or terminated for default in the 5 years prior to the bid submittal date, provide a written explanation for all contracts terminated for cause or terminated for default by identifying the project contract that was terminated, the government agency which terminated the Contract, the date of the termination, and a description of the circumstances surrounding the termination.

_____ _____

(Date) (Signature)

_____

(Print Name)

_____

(Title)

6. Lawsuits

Instructions to Bidders: Check the appropriate box

☐ The undersigned certifies that the Bidder has not had any lawsuits with judgments entered against the Bidder in the 5 years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts.

☐ Alternatively, the undersigned confirms that the Bidder has had any lawsuits with judgments entered against the Bidder in the 5 years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts.

If the Bidder has had any lawsuits with judgments entered against the Bidder in the 5 years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, submit a list of lawsuits along with a written explanation of the circumstances surrounding each lawsuit. The Contracting Agency shall evaluate these explanations to determine whether the lawsuits demonstrate a pattern of failing to meet the terms of contracts.

_____ _____

(Date) (Signature)

_____

(Print Name)

_____

(Title)

7. Contract Time (Liquidated Damages)

Instructions to Bidders: Check the appropriate box

☐ The undersigned certifies that the Bidder has not had liquidated damages assessed on any project it has completed in the 5 years prior to the bid submittal date.

☐ Alternatively, the undersigned confirms that the Bidder has had liquidated damages assessed on projects in the 5 years prior to the bid submittal date.

If the Bidder has had liquidated damages assessed against projects in the 5 years prior to the bid submittal dated, submit a list of projects along with Owner contact information, and number of days assessed liquidated damages. The Contracting Agency shall determine whether the Contractor has a pattern of failing to complete projects within Contract Time.

_____ _____

(Date) (Signature)

_____

(Print Name)

_____

(Title)

8. Capacity and Experience

The Bidder shall have sufficient current capacity and experience to meet the requirements of this Project. The Bidder shall have successfully completed at least three projects, of a similar size and scope, during the 5-year period immediately preceding the bid submittal deadline for this project. Similar size is defined as a minimum of 60 percent of the bid amount submitted by the Bidder.

A. Capacity

i. Gross dollar amount of work currently under contract:

_____

ii. Gross dollar amount of contracts currently not completed:

_____

iii. List five major pieces of equipment which are anticipated to be used on this project by the Contractor and note which items are owned by the Contractor and which are to be leased or rented from others:

_____

_____

B. Experience

i. General character of work performed by firm:

_____

ii. Identify who will be the superintendent on this project. Also, list the number of years this person has been with your firm.

_____

iii. Similar Size and Scope Projects Completed in the Part 5 Years

#1 Owner's Name and Contact Information: _____

_____

_____

Owner is a Government Agency? ___ Yes ____ No
Project Name: _____
Awarded Contract Amount: _____
Final Contract Amount: _____
Completion Date: _____
Project Description: _____

_____

_____

_____

_____

#2 Owner's Name and Contact Information: _____

_____

_____

Owner is a Government Agency? ___ Yes ____ No
Project Name: _____
Awarded Contract Amount: _____
Final Contract Amount: _____
Completion Date: _____
Project Description: _____

_____

_____

_____

_____

#3 Owner's Name and Contact Information: _____

_____

_____

Owner is a Government Agency? ___ Yes ____ No
Project Name: _____
Awarded Contract Amount: _____
Final Contract Amount: _____
Completion Date: _____
Project Description: _____

_____

_____

_____

_____

APPENDIX D

PROPERTY RELEASE FORM

PROPERTY RELEASE

_____
(Owner's Name)

_____
(Property Address)

_____

DATE:_____

I, _____, owner of _____
(Property Owner's Name) (Property

_____, hereby release
(Description or Address)

_____, from any property
(Contractor's Name)

damage or personal injury resulting from construction adjacent

to or on my property located at _____,
(Property Address)

during construction of the SE May Creek Park Drive Non-Motorized Improvements. My signature below is my acknowledgment and acceptance that my property, as identified above, was returned to a satisfactory condition.

Name: _____

Signed: _____

Address: _____

_____

Phone: _____

APPENDIX E

GEOTECHNICAL REPORT

GEOTECHNICAL REPORT
SE May Creek Park Drive Non-Motorized Improvements, Gypsy Creek Ravine Newcastle, Washington

PROJECT NO. 18-286.200
April 2022

Prepared for:

Gray & Osborne, Inc.
CONSULTING ENGINEERS

PanGEO INCORPORATED
Geotechnical & Earthquake Engineering Consultants

PanGEO INCORPORATED
Geotechnical & Earthquake Engineering Consultants

April 19, 2022
PanGEO Project No. 18-286.200

Mr. Kevin Brown, P.E.
Gray & Osborne, Inc.
3710 168th Street NE, Bldg. "B", Suite 210
Arlington, Washington 98223

Subject: **Geotechnical Report**
SE May Creek Park Drive Non-Motorized Improvements
Gypsy Creek Ravine, Newcastle, Washington
Gray & Osborne IPN #21459

Dear Mr. Brown:

As requested, PanGEO, Inc. completed a geotechnical engineering study for the proposed sidewalk and bike lane planned on the north side of SE May Creek Park Drive at Gypsy Creek in Newcastle, Washington. The results of our study and our recommendations are summarized in the attached report.

In summary, based on the results of our study, it is our opinion that a soldier pile wall would be a feasible option to support the new sidewalk and bike lane.

We appreciate the opportunity to assist you with this project. Please call if you have any questions.

Sincerely,

Siew L. Tan, P.E.
Principal Geotechnical Engineer

Attached: Geotechnical Report

3213 Eastlake Ave E, Ste B
Seattle, WA 98102
Tel (206) 262-0370

TABLE OF CONTENTS

LIST OF FIGURES

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GEOTECHNICAL REPORT
SE MAY CREEK PARK DRIVE NON-MOTORIZED IMPROVEMENTS
GYPSY CREEK RAVINE
NEWCASTLE, WASHINGTON

1.0 INTRODUCTION

PanGEO, Inc. completed a geotechnical engineering study to develop retaining wall options for the proposed pedestrian and bicycle improvements on the north side of SE May Creek Park Drive in the vicinity of Gypsy Creek in Newcastle, Washington. Our service scope, as outlined in our proposal dated January 25, 2021, included a site reconnaissance, drilling three (3) test borings, and developing the conclusions and recommendations presented in this report.

2.0 SITE AND PROJECT DESCRIPTION

The SE May Creek Park Drive Non-Motorized Improvements project is an approximately 4,500-foot long project alignment located between the hairpin turn located roughly 750 feet north of 124th Avenue SE and NE 35th Street. This study focuses on an approximately 150-foot long portion of the project where SE May Creek Park Drive was constructed on embankment fill placed over a piped section of Gypsy Creek, just west of 121st Avenue SE approximately as shown on the attached Figure 1, Vicinity Map.

As seen in Plate 1 on the following page, the north shoulder of SE May Creek Park Drive in the project area is quite narrow and the embankment slope descends north to the bottom of the ravine at roughly a 1½H:1V inclination. Review of a topographic survey provided by Gray & Osborne indicates there is about 30 feet of vertical relief between the road grade and Gypsy Creek. A 36-inch diameter concrete culvert is located in the creek channel.

We understand the proposed improvements on the north side of SE May Creek Park Drive will consist of constructing curb and gutter, sidewalk, and a bike lane. The planned improvements will extend about 13 to 16 feet north of the existing edge of pavement. We understand right-of way in the project area extends about 22 to 24 feet north of the existing edge of pavement in the vicinity of Gypsy Creek. Due to the width of the planned improvements and the steeply descending topography, a retaining wall will be needed to accommodate the proposed improvements.

Plate 1 – Facing west along the north shoulder of SE May Creek Park Drive from the east side of the Gypsy Creek ravine.

As currently planned, an approximately 150-foot long, east-west trending soldier pile wall will be constructed about 3½ feet north of the back of sidewalk approximately as shown on the attached Figure 2. The soldier piles will be installed in the existing sloping grade, and the area behind (south) of the soldier pile wall will be filled to accommodate construction of the new sidewalk and bike lane. We anticipate fills will be up to about 10 feet thick. Geofoam backfill will be utilized to reduce lateral pressures on the soldier pile wall.

In addition, two relatively short gravity walls constructed of concrete modular blocks are planned at the east and west ends of the soldier pile wall (see Figure 2). The modular block walls will retain fills up to about 3 feet thick.

The conclusions and recommendations in this report are based on our understanding of the proposed improvements, which is in turn based on the project information provided. If the above project description is incorrect, or the project information changes, we should be consulted to review the recommendations contained in this study and make modifications, if needed. In any case, PanGEO should be retained to provide a review of the final design to confirm that our geotechnical recommendations have been correctly interpreted and adequately implemented in the construction documents.

3.0 SUBSURFACE EXPLORATIONS

Three test borings (PG-101 through PG-103) were drilled along the project alignment on April 7, 2021. The approximate boring locations were located in the field by taping from existing site features and are indicated on Figure 2. The borings were advanced to depths of 41½ to 51½ feet below the road surface.

The borings were drilled using a Deeprock XL trailer-mounted drill rig owned and operated by Geologic Drill Partners, Inc. of Fall City, Washington. The drill rig was equipped with 6-inch outside diameter hollow stem augers. Soil samples were obtained from the borings at 2½- and 5-foot depth intervals in conjunction with Standard Penetration Test (SPT) sampling methods in general accordance with ASTM test method D-1586, in which the samples are obtained using a 2-inch outside diameter split-spoon sampler. The sampler was driven into the soil a distance of 18 inches using a 140-pound weight falling a distance of 30 inches. The number of blows required for each 6-inch increment of sampler penetration was recorded. The number of blows required to achieve the last 12 inches of sample penetration is defined as the SPT N-value. The N-value provides an empirical measure of the relative density of cohesionless soil, or the relative consistency of fine-grained soils.

A geologist from PanGEO was present during the field exploration to observe the drilling, to assist in sampling, and to describe and document the soil samples obtained from the borings. The soil samples were described using the system outlined on Figure A-1 in Appendix A. The summary boring logs are also included in Appendix A, Figures A-2 through A-4.

4.0 SUBSURFACE CONDITIONS

4.1 GEOLOGY AND SOIL CONDITIONS

According to the Geologic Map of King County (Booth, et al, 2007), the project vicinity is generally underlain by Vashon glacial till (Map Unit Qvt). Glacial till typically consists of a dense to very dense heterogeneous mixture of silt, sand and gravel. In addition, Vashon recessional outwash (Map Unit Qvr) and pre-Fraser fine-grained deposits (Map Unit Qpff) are mapped in the project vicinity. Recessional outwash generally consists of moderately to well-sorted stratified sand and gravel that was transported and deposited by the outwash streams of a retreating glacier. Recessional outwash has not been glacially overridden and typically ranges from loose to dense. Pre-Fraser fine-grained deposits generally consist of interbedded silt and clay with occasional sandy interbeds. Pre-Fraser fine-grained deposits have been glacially overridden and typically range from stiff to hard.

In general, the soils encountered in our test borings were consistent with the recessional outwash and pre-Fraser fine-grained deposits mapped in the project vicinity. A detailed description of the subsurface conditions encountered at each test boring location is included in Appendix A. Two generalized subsurface profiles depicting the conditions encountered at our boring locations are attached as Figure 3 (A-A') and Figure 4 (B-B'). The following is a summary of the soils units encountered at our test borings:

Embankment Fill – Loose to medium dense embankment fill was encountered at all of our test borings. The embankment fill typically consisted of silty sand with gravel that contained a varying amount of organics. The embankment fill was encountered to about 18 feet below grade at test boring PG-101, 27 feet below grade at PG-102, and 13 feet below grade at PG-103.

Colluvium – Underlying the embankment fill at test boring PG-101, an approximately 5-foot thick layer of stiff clayey silt interpreted as colluvium was encountered. This soil unit was not encountered at PG-102 or PG-103.

Recessional Outwash – Underlying the embankment fill at boring PG-102 and PG-103, medium dense to dense, silty sand and poorly graded sand interpreted as a recessional outwash deposit was encountered. This soil unit was encountered from about 27 feet to 35 feet below grade at PG-102 and from about 13 feet to 28 feet below grade at PG-103.

Pre-Fraser Fine-Grained Deposits – Underlying the colluvium at PG-101 and the recessional outwash at PG-102 and PG-103, clayey silt to silty clay that we interpret to be consistent with the pre-Fraser fine-grained deposits mapped in the area were encountered. The relative consistency of this soil unit was typically very stiff to hard. This soil unit was encountered to the maximum depth explored at all of our test boring locations.

4.2 GROUNDWATER

Groundwater was not encountered at test borings PG-101 and PG-102 at the time of drilling in April 2021. A localized zone of perched groundwater was encountered about 20 feet below grade in PG-103 at the time of drilling. Perched water is often present in fill placed on silty outwash or on low-permeability deposits such as pre-Fraser fine-grained deposits.

Groundwater levels and seepage rates are likely to vary depending on the season, local subsurface conditions, the water level in Gypsy Creek, and other factors. Groundwater levels and seepage rates are normally highest during the winter and early spring.

5.0 CRITICAL AREAS CONSIDERATIONS

Chapter 18.24 of the Newcastle Municipal Code (NMC) pertains to critical areas which are subject to natural hazards or support unique, fragile, or valuable natural resources. Maps of showing approximate boundaries of various critical areas within the city are in the Land Use Appendix of the City of Newcastle 2035 Comprehensive Plan (Comprehensive Plan). Geotechnically-related critical areas addressed in NMC Chapter 18.24 include erosion hazard areas, coal mine hazards, seismic hazard areas, landslide hazard areas, and steep slope hazard areas. Our evaluation of the geotechnically-related critical areas at the project follows.

5.1 EROSION HAZARD AREAS

Section 18.06.215 of the NMC describes Erosion Hazard Areas as areas underlain by soils which are subject to severe erosion when disturbed. Such soils include, but are not limited to, those classified as having a severe to very severe erosion hazard according to the USDA National Resources Conservation Service (NRCS). These soils include, but are not limited to:

A. Any occurrence of river wash (“Rh”) and any of the following when they occur on slopes 15 percent or steeper:

1. The Alderwood gravelly sandy loam (AgD);

2. The Alderwood and Kitsap soils (AkF);

3. The Beausite gravelly sandy loam (BeD and BeF);

4. The Kitsap silt loam (KpD);

5. The Ovall gravelly loam (OvD and OvF);

6. The Ragnar fine sandy loam (RaD); and

7. The Ragnar-Indianola Association (RdE); and

B. Those which represent significant risk to sensitive receiving waters due to the proximity to those receiving waters and the size of the disturbed area.

Review of the soils map for the area of the site available on the USDA NRCS Web Soil Survey indicates the soil unit mapped at the site is Alderwood gravelly sandy loam, 15 to 30 percent slopes (Map Unit AgD), which is described as having a severe erosion hazard. The project area is also mapped within an Erosion Hazard Area in Figure LU-5 of the Comprehensive Plan.

During our site reconnaissance, we did not observe signs of on-going erosion on the face of the site slopes. In our opinion, the potential for erosion at the site can be adequately mitigated by adequately controlling surface water runoff and by employing best management practices (BMPs). The construction erosion control recommendations provided in Section 6.5.3 of this study should be applied to this project.

5.2 SEISMIC HAZARD AREAS

The NMC defines seismic hazard areas as those areas subject to severe risk of earthquake damage as a result of earthquake-induced ground shaking, slope failure, liquefaction-induced settlement, or surface rupture in areas underlain by cohesionless soils of low density and usually in association with a shallow groundwater table or of other seismically induced settlement (NMC 18.06.536).

Based on the geologic setting of the site, the presence of glacially overridden deposits at relatively shallow depths, and a depressed groundwater table, it is our opinion that the

susceptibility of the site to earthquake-induced soil liquefaction is considered to be negligible. Special design considerations associated with soil liquefaction are not necessary for this project.

Design of the proposed soldier pile wall included evaluating the post-construction slope stability in a code level seismic event as discussed in Section 6.3.1. Based on the results of our analyses, an adequate factor-of-safety against seismic wall instability would be maintained in a code level seismic event.

5.3 Coal Mine Hazard Areas

Based on review of Figure LU-7 in the Comprehensive Plan, a Coal Mine Hazard Area is not mapped in the project vicinity.

5.4 Landslide Hazard Areas

Section 18.06.353 of the NMC defines Landslide Hazard Areas as those areas in the city subject to severe risks of landslides, including the following:

A. Any area with a combination of:

1. Slopes steeper than 15 percent;

2. Impermeable soils, such as silt and clay, frequently interbedded with granular soils, such as sand and gravel; and

3. Springs or groundwater seepage;

B. Any area which has shown movement during the Holocene epoch, from 9,700 BC, or which is underlain by mass wastage debris from that epoch;

C. Any area potentially unstable as a result of rapid stream incision, stream bank erosion or undercutting by wave action;

D. Any area which shows evidence of or is at risk from snow avalanches;

E. Any area located on an alluvial fan, or in or below a ravine or canyon presently subject to or potentially subject to inundation by debris flows or deposition of stream-transported sediments; or

F. Areas of historic failures, such as areas designated as earthflows, mudflows, or landslides on maps published by the U.S. Geological Survey, Washington State Department of Natural Resources, and/or other research meeting the best available science

Based on our observations at the time of our field work and based on the subsurface conditions encountered in our test borings, it is our opinion that above conditions meeting the NMC definition of a Landslide Hazard Area are not present at the site. Furthermore, based on review of Figure LU-7 in the Comprehensive Plan, a Landslide Hazard Area is not mapped in the project vicinity.

5.5 STEEP SLOPE HAZARD AREAS

Section 18.06.628 of the NMC defines Steep Slope Hazard Areas as slopes 40 percent or steeper within a vertical elevation change of at least 10 feet. Review of a topographic survey prepared for this project indicates that slopes meeting the definition of a Steep Slope Hazard Area are present within the existing City of Newcastle right-of-way in the project area. However, based on the presence of 13 to 27 feet of existing fill at our test boring locations, it is our opinion that the steep slopes are the result of previous legal grading within the right-of-way (i.e. filling the ravine).

Section 18-24.300 of the NMC has a provision for regrading and stabilizing a slope formed as a result of a legal grading activity, if the regrading or stabilization is also authorized as a legal grading activity. Our slope stability analyses indicate that construction of the proposed soldier pile wall will increase global site stability in the project area. Furthermore, it is our opinion that construction of the proposed project will not adversely impact the subject and surrounding properties, provided that the recommendations presented in this report are properly incorporated into the design and construction of the project.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 SEISMIC SITE CLASS

The seismic design of the soldier pile wall may be accomplished using the American Association of State Highway and Transportation Officials (AASHTO) seismic design specifications for a 7% probability of occurrence within a 75-years period (975-year event). For design purposes, it is our opinion that Site Class D (Stiff Soil) is appropriate for this project.

Based on the geologic setting of the site and the presence of glacially overridden deposits at relatively shallow depths a depressed groundwater table, it is our opinion that the susceptibility of the site to earthquake-induced soil liquefaction is considered to be negligible. It is our opinion that special design considerations associated with soil liquefaction are not necessary for this project.

6.2 RETAINING WALL CONSIDERATIONS

Based on the subsurface conditions encountered in our test borings and the scope of the project, the following options were evaluated to support the proposed sidewalk and bike lane at Gypsy Creek:

- ***Soil Buttress:*** Support the sidewalk and bike lane with a soil buttress sloped at an inclination no steeper than 2H:1V (Horizontal:Vertical). This option would require the City to acquire the adjacent privately-owned parcel to the north. Because the toe of the soil buttress would extend north beyond the Gypsy Creek culvert, the culvert would need to be extended. Non-geotechnically related Critical Areas such as streams and wetlands could complicate permitting this option.

- ***Cantilevered Soldier Pile Wall:*** Construct a cantilevered soldier pile wall within the existing right-of-way. A soldier pile wall constructed behind the planned sidewalk would be up to about 10 feet high. New fill would be needed to raise grades behind the soldier pile wall. Lightweight backfill, such as Geofoam, could be used as new fill behind the soldier pile wall to reduce the lateral pressure on the wall for a more efficient wall design.

It is our opinion that installing a cantilevered soldier pile wall within the existing right-of-way represents the most practical option to support the proposed sidewalk and bike lane in the vicinity of Gypsy Creek.

- ***Mechanically Stabilized Earth (MSE) Wall:*** Construct a MSE wall at the toe of the embankment fill, just south of the Gypsy Creek culvert. This option would also require the City to acquire the adjacent privately-owned parcel to the north. However, based on the results of our evaluation, the MSE wall would need to be quite substantial in order to achieve an adequate factor of safety for the seismic condition. Temporary excavations to construct the MSE wall would extend into the north travel lane of SE May Creek Park Drive. In addition, the temporary excavation would be in conflict with the existing water main in the north shoulder of the roadway.

  Based on the significant amount of earthwork needed for the MSE wall option, the impact of the temporary excavation on the roadway, the longer construction duration versus soldier piles, and the need to purchase private property, it is our opinion that this option would not be cost-effective or practical. In addition, non-geotechnically related Critical Areas such as streams and wetlands could complicate permitting this option.

Conclusions - Based on our discussions with Gray & Osborne, and their conversations with the City of Newcastle, we understand it is planned to construct a cantilevered soldier pile wall to support the bike lane and sidewalk improvements. At the east and west ends of the soldier pile alignment, concrete modular block fill walls up to about 3 feet high are planned to transition from the soldier pile wall to the existing grade.

Our recommendations for a solider pile wall and low-height gravity walls are provided in the following sections.

6.3 CANTILEVERED SOLDIER PILE WALL

We understand that a cantilevered soldier pile wall is planned about 3½ feet the north of the back of the proposed sidewalk. As such, the wall will be installed in the existing sloping grade downslope (north) of the sidewalk and new fill will be needed to raise grades to the design sidewalk elevation. The following sections present our recommendations for the design of cantilevered soldier pile walls:

6.3.1 Slope Stability Analysis

For the purposes of evaluating minimum pile tip elevations based on geotechnical global stability (static and seismic) and to provide a more economical design, we divided the soldier pile wall alignment into three sections; the taller central portion of the wall alignment (STA 48+45 to 49+20) and the shorter portions of the wall to the east and west (STA 48+00 to 48+45 and 49+20 to 49+60). To evaluate the factor of safety against potential future slope instability beneath the pile tips for the static and seismic conditions, we performed slope stability analysis using the computer program *Slide v6.0* (Rocscience).

Our analysis assumed an 8-foot on-center pile spacing and the minimum pile shear strengths provided on the attached Figures 5 through 8 as summarized in Table 1 below. Our stability analysis included evaluating post-construction global wall stability in the event that a shallow slope failure (i.e., about 3 feet deep) occurs at the toe of the soldier pile wall (see Plate 2, next page).

Table 1 - -Minimum Soldier Pile Shear Strength

Wall Stationing (STA)	**Minimum Soldier Pile Sear Strength**	
	Gravel Borrow Fill	***Geofoam Fill***
STA 48+45 to 49+20	95 kips (See Figure 6)	70 kips (See Figure 8)
STA 48+00 to 48+45	15 kips (See Figure 5)	15 kips (See Figure 7)
STA 49+20 to 49+60		

Search routines were used to identify the surface that has the lowest factor of safety. The seismic stability was analyzed using pseudo-static procedures, where the effect of earthquake ground shaking is represented by the use of a "seismic coefficient" in the stability calculations. In our pseudo-static stability analysis, an acceleration coefficient of 0.25g (one half of site PGA) was used per the BridgeLink™ application available on WSDOT's website. The soil parameters for the soil units were assigned based on empirical correlations using SPT blowcount values

measured in the borings, and our experience with similar soil conditions and published literatures.

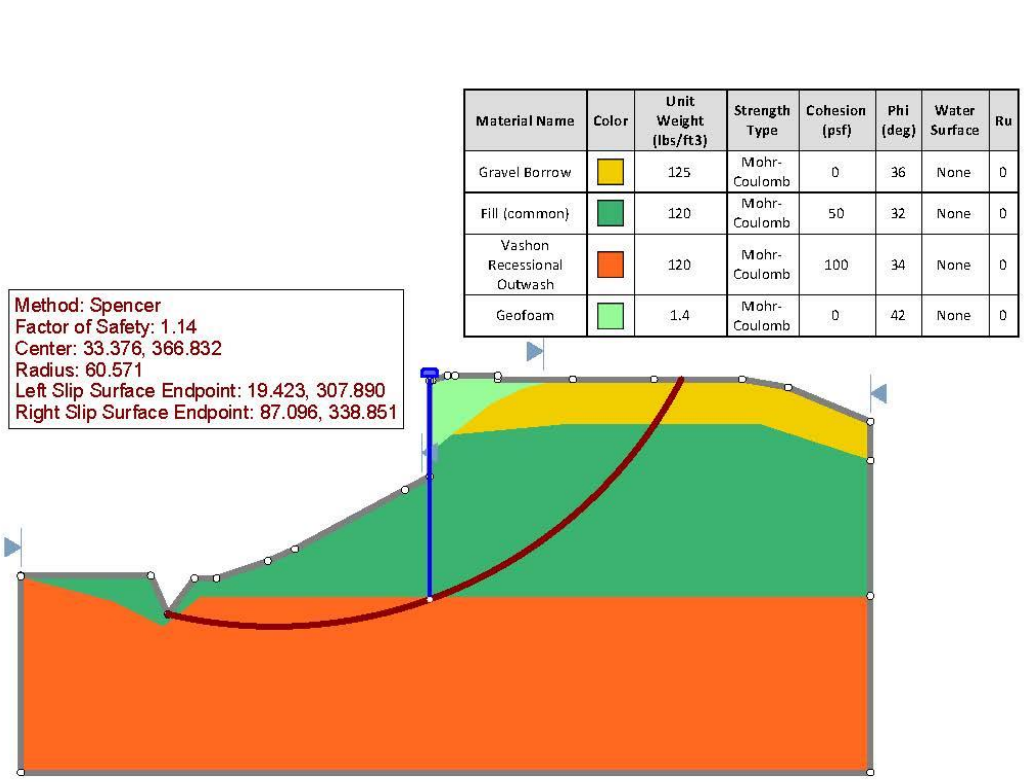


Plate 2 – Seismic stability analysis at STA 48+75 modeling a geofoam backfilled soldier pile wall

Based on the results of our slope stability analyses, the minimum pile tip elevations provided in Table 2 on the following page will be needed to satisfy geotechnical global stability. In our opinion, results of our slope stability analysis and subsequent recommendations meet the minimum factor of safety of 1.5 under static conditions and 1.1 for seismic conditions. The soldier pile wall should also be designed to meet the structural capacity of the wall.

Table 2 - -Minimum Soldier Pile Tip Elevations for Global Stability

Wall Stationing (STA)	Soldier Pile Wall Retained Height (feet)	Section Analyzed for Global Stability Analysis	Minimum Pile Tip Elevation (feet, NAVD88) *(based on geotechnical global stability)*	
			Gravel Borrow Fill	***Geofoam Fill***
STA 48+45 to 49+20	8½ to 13	STA 48+75	Elev. 308 ft (See Figure 6)	Elev. 308 ft. (See Figure 8)
STA 48+00 to 48+45	4½ to 7	STA 49+25	Elev. 326 ft (See Figure 5)	Elev. 328 ft. (See Figure 7)
STA 49+20 to 49+60				

6.3.2 Soldier Pile Wall Design Considerations

Design Earth Pressures – We recommend that the design parameters outlined in Figures 5 and 6 be used for a soldier pile wall with Gravel Borrow backfill (WSDOT 9-03.14(1)). For a soldier pile wall with geofoam fill, the design parameters outlined in Figures 7 and 8 should be used for wall design.

Above the bottom of excavation, the recommended active earth pressure should be applied over the full width of the pile spacing. Below the bottom of excavation, the passive resistance should be applied over two times the pile diameter and the active and at-rest pressure applied over one single pile diameter. The soldier piles should have the minimum embedment indicated on the attached Figures 5 through 8, which are summarized in Table 2 in Section 6.3.1 of this report, to satisfy the global stability.

A uniform seismic earth pressure, as indicated in Figures 5 through 8, should be included in the design calculations. The seismic pressure should be applied to the portion located above the lowest adjacent grade.

Surcharge Loads – The lateral earth pressures shown on Figures 5 through 8 should be increased for any surcharge loads resulting from traffic, construction equipment, or backslopes if they are located within the height dimension of the wall.

Deflections – We recommend that the soldier pile wall be designed for a maximum pile top deflection of no more than 1 inch for static conditions.

Drainage – For permanent walls with timber lagging, no additional drainage provisions are required, as the gaps in the timber boards will allow water to seep through.

Geofoam Backfill – To reduce the lateral pressure on the wall for a more efficient wall design, the use of geofoam backfill (structural foam, EPS 22 minimum) may be considered. The geofoam should be capped with at least 1½-feet of granular structural fill such as WSDOT Gravel Borrow.

Geofoam will melt and lose structural capacity when exposed to petroleum products. Therefore, the geofoam blocks should be completely encased with a membrane to protect it from potential petroleum products. The type of membrane should be specified by the geofoam supplier.

Lagging – Permanent lagging should be designed for the full active earth pressure as a uniform load applied along the effective lagging span (AASHTO LRFD Section 11.8.5.2).

Permanent Walls – The proposed soldier pile wall will be a permanent wall, and the soldier piles should be properly protected against corrosion. This may include proper coatings or upsizing of piles. In addition, it should be noted that pressure-treated timber lagging between soldier piles have limited design life, typically about 20 years, and the installation of a permanent concrete facing in front of the timber lagging may be considered.

Construction Considerations – We recommend that the following should be incorporated into the project plans and specifications:

- The geotechnical engineer shall verify the suitability of all soldier pile holes before concrete placement;
- Tremie methods shall be used for concrete placement in all holes having 6 or more inches of accumulated water if perched ground water or heavy precipitation is encountered during construction.
- All soldier pile holes drilled shall be filled with lean concrete mix or structural concrete on the same day.

6.4 MODULAR CONCRETE BLOCK WALLS

Based on preliminary project information provided by Gray & Osborne, we understand concrete modular block gravity walls retaining fills up to about 3 feet high are planned at the east and west ends of the soldier pile wall. The grade at the toe of the walls is relatively level.

Small concrete blocks such as those manufactured by Keystone (www.keystonewalls.com) or other suppliers may be used if there is no traffic surcharge near the top of the wall (i.e. pavement edge should be located at least 3 feet from the wall face for a 3-foot high wall).

Geotechnical Design Parameters – We recommend that the walls be designed by the block wall supplier using the parameters outlined below.

- Soil Friction Angle (Φ)- 32 degrees
- Active Earth Pressure (level backslope) – 35 pcf
- Allowable Friction Coefficient – 0.35
- Allowable Passive Pressure (level foreslope) – 300 pcf
- Allowable Bearing Capacity – 1,500 psf
- Horizontal Seismic Acceleration Coefficient (K_h) – 0.3g
- Vertical Seismic Acceleration Coefficient (K_v) – 0.0g
- Minimum Wall Embedment –12 inches below adjacent finished grade

Foundation Preparation – The foundation bearing soils should be compacted to a firm and unyielding condition prior to placing the initial course of blocks. If the foundation subgrade cannot be adequately compacted, overexcavation will be needed in order to improve the foundation bearing soils. The foundation overexcavation should be backfilled with Crushed Surfacing Base Course (CSBC, Section 9-03.9(3)) of the 2021 WSDOT *Standard Specifications)* and compacted to a dense condition. In general, the overexcavation may be limited to a maximum depth of 2 feet, unless highly organic materials are present in the foundation excavation. The overexcavation width should extend at least one-half the overexcavation depth beyond the edges of the footings.

We also recommend that a geotextile fabric be placed at the bottom of the overexcavation before placing CSBC structural fill. The geotextile fabric may be selected for soil stabilization based on Table 3, Section 9-33.2(1) of the 2021 WSDOT Standard Specifications

To provide a firm and uniform support for the walls, a 6-inch thick layer of Crushed Surfacing Top or Base Course (CSTC or CSBC, WSDOT 9-03.9(3)) or an approved equivalent may be placed as a leveling course.

Surcharge - Lateral pressures from surface surcharges located within a distance equal to the exposed wall height should be estimated using a lateral pressure coefficient of 0.3 (i.e. the ratio of lateral pressure to vertical pressure).

6.5 EARTHWORK

6.5.1 Permanent Cut and Fill Slopes

We recommend that new permanent cut and fill slopes, where applicable, be constructed no steeper than 2H:1V (horizontal:vertical). For fill slopes constructed at 2H:1V or flatter, and comprised of fill soils placed and compacted as recommended in this report, we anticipate that adequate factors of safety against global failure will be maintained.

Measures should be taken to prevent surficial instability and/or erosion. For a permanent fill slope, this can be accomplished by conscientious compaction of the embankment fills all the way out to the slope face, by maintaining adequate drainage, and planting the slope face as soon as possible after construction. To achieve the specified relative compaction at the slope face, it may be necessary to overbuild the slopes several feet, and then trim back to design finish grade. In our experience, compaction of slope faces by "track-walking" is generally not as effective.

For all permanent slopes, vegetation should be planted as soon as feasible.

6.5.2 Structural Fill and Compaction

The contractor should be aware that the soils expected to be encountered during construction have a relatively high fines content and will likely be difficult to compact to the requirements of structural fill. As a result, we do not recommend the excavated site materials be used as structural fill.

Imported structural fill should consist of clean, free-draining granular soils that are relatively free from organic matter or other deleterious materials. Such materials should be less than 4 inches in maximum dimension, with less than 7 percent fines (portion passing the U. S. Standard No.

200 sieve), such as Gravel Borrow as specified in Section 9-03.14(1) of the 2021 WSDOT *Standard Specifications for Road, Bridge, and Municipal Construction* (WSDOT, 2021). The fine-grained portion of structural fill soils should be non-plastic.

Structural fill should be moisture conditioned to within about 3 percent of optimum moisture content, placed in loose, horizontal lifts less than 8 inches in thickness, and systematically compacted to at least 95 percent of the maximum dry density, as determined using test method ASTM D1557.

6.5.3 Construction Timing and Erosion Control

In our opinion, the proposed site construction may be accomplished during wet weather (such as in winter) without adversely affecting the site stability, so long as the work area is provided with adequate ditching and drainage to prevent the accumulation of stormwater in foundation areas. In addition, surface water must not be allowed to flow over site slopes.

In our opinion, the potential for erosion at the site can be adequately mitigated by employing best management practices (BMPs). During construction, erosion control should include measures for reducing concentrated surface water runoff and for reducing the potential of off-site sediment transport by protecting disturbed or exposed surfaces. The temporary erosion and sediment control (TESC) plan should include the following:

- Where practical, maintain vegetation buffers around cleared areas.
- The ground surface within the construction area should be graded to prevent ponding of water and to prevent runoff from reaching site slopes
- Adequately cover soil stockpiles with plastic sheeting.
- Hydroseed or place straw in areas where grading is completed.
- Divert water away from the top of slopes.
- Use silt fences and/or straw bales around the site perimeter.
- If possible, stage construction such that the amount of exposed soil and exposure time is minimized.

PanGEO should review the TESC plan to verify our recommendations are incorporated into the design. The erosion control measures should be inspected on a regular basis to verify they are functioning as intended.

6.5.4 Wet Weather Earthwork

The surficial soils along the alignment are moisture sensitive, and will be difficult to compact and handle when wet. If the subgrade soils become saturated and spongy due to rain and/or construction traffic, the required compaction may not be achieved. In such an event, soft soils should be removed from the area. Imported structural fill, such as Gravel Borrow meeting the gradation specification described above, should be placed to bring the affected area to proposed grade.

General recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. These recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soil should be followed promptly by the placement and compaction of clean structural fill. The size and type of construction equipment used may have to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic.

- During wet weather conditions, the allowable fines content of the gravel borrow should be reduced to no more than 5 percent by weight based on the portion passing ¾-inch sieve. The fines should be non-plastic.

- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water.

- The ground surface within the construction area should be sealed by a smooth drum vibratory roller, or equivalent, and under no circumstances should soil be left uncompacted and exposed to moisture.

- Bales of straw and/or geotextile silt fences should be strategically located to control erosion and the movement of soil.

7.0 LIMITATIONS

We have prepared this report for use by Gray & Osborne, Inc., the City of Newcastle and the project team. Recommendations contained in this report are based on a site reconnaissance, the information obtained from our site exploration program, and our understanding of the proposed project. The study was performed using a mutually agreed-upon scope of work in accordance with the generally accepted standards of local practice at the time this report was written. No warranty, express or implied, is made.

The inference of subsurface conditions at the site was based on our interpretation of conditions encountered in the site explorations, supplemented with our knowledge of subsurface conditions from published literatures. Variations in soil conditions may exist between the locations of the site explorations and the actual conditions underlying the site. The nature and extent of soil variations may not be evident until construction occurs. If any soil conditions are encountered at the site that are different from those described in this report, we should be immediately notified to review the applicability of our recommendations. Additionally, we should also be notified to review the applicability of our recommendations if there are any changes in the project scope, retaining wall location, or retaining wall heights.

The scope of our work does not include services related to construction safety precautions and our recommendations are not intended to direct the contractor's methods, techniques, sequences or procedures, except as specifically described in our report for consideration in design. Additionally, the scope of our work specifically excludes the assessment of environmental characteristics, particularly those involving hazardous substances or wetlands.

This report may be used only by the client and for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both off and on-site), or other factors including advances in our understanding of applied science, may change over time and could materially affect our findings. Therefore, this report should not be relied upon after 24 months from its issuance. PanGEO should be notified if the project is delayed by more than 24 months from the date of this report so that we may review the applicability of our conclusions considering the time lapse.

It is the client's responsibility to see that all parties to this project, including the designer, contractor, subcontractors, etc., are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the contractor's option and risk. Any party other than the client who wishes to use this report shall notify PanGEO such intended use and for permission to copy this report. Based on the intended use of the report, PanGEO may require that additional work be performed and that an updated report be reissued. Noncompliance with any of these requirements will release PanGEO from any liability resulting from the use this report.

We appreciate the opportunity to provide geotechnical engineering services on this project. Please call if you have any questions regarding this report.

Sincerely,

April 19, 2022

Steven T. Swenson, L.G.
Senior Geologist

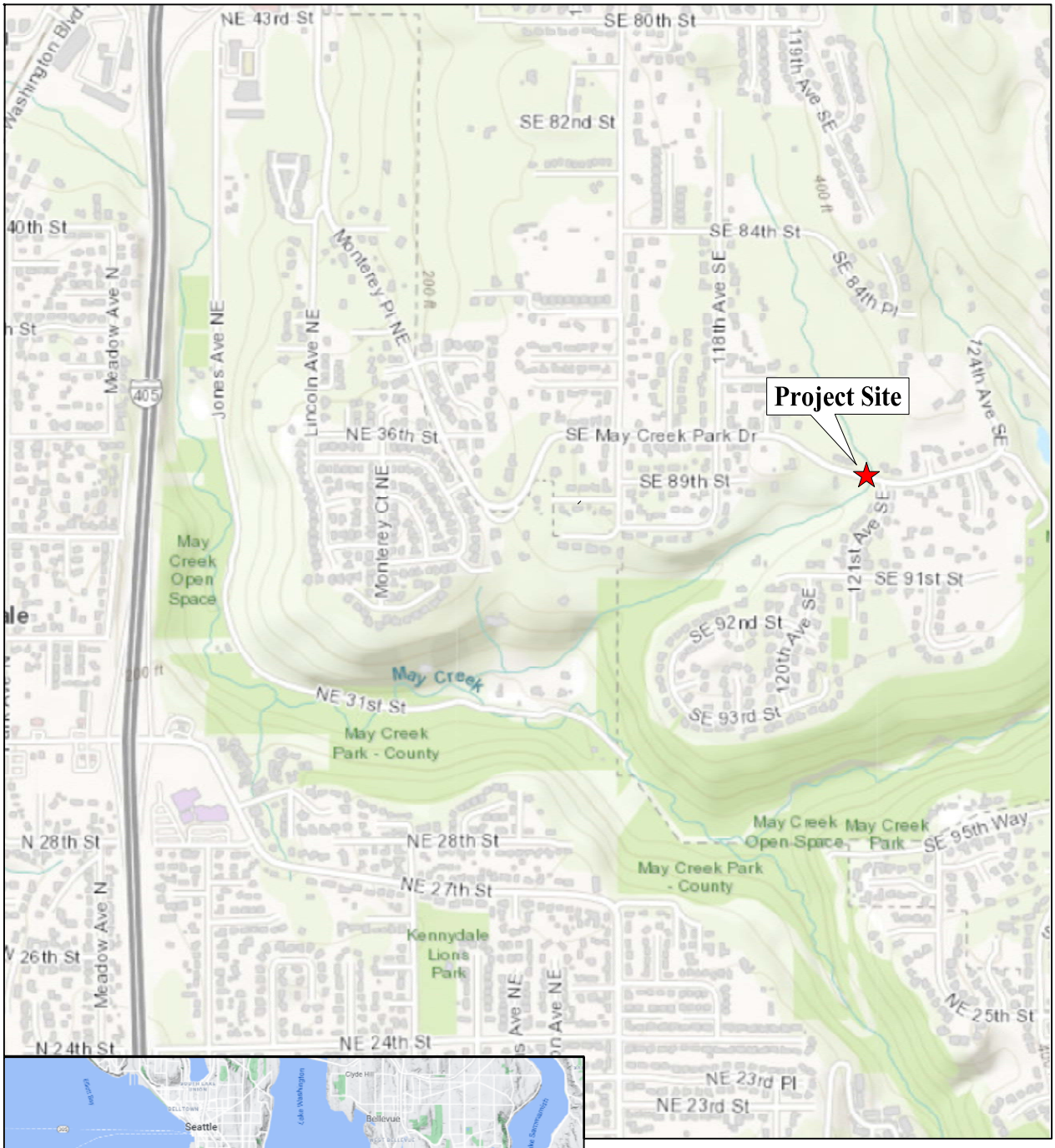
Siew L. Tan, P.E.
Principal Geotechnical Engineer

8.0 LIST OF REFERENCES

Booth, Derek B., Troost, Kathy A., and Wisher, Aaron P., 2007, *Geologic Map of King County, Washington*: University of Washington Earth and Space Sciences and GeoMapNW, scale 1:100,000.

City of Newcastle, *2035 Comprehensive Plan,* amended November 2019.

WSDOT, 2021, *Standard Specifications for Road, Bridges, and Municipal Construction*.



Base Map: ESRI Topographic

NORTH

Approx. Scale: Not to Scale

PanGEO INCORPORATED

SE May Creek Park Drive
Non-Motorized Improvements
Gypsy Creek Ravine
Newcastle, WA

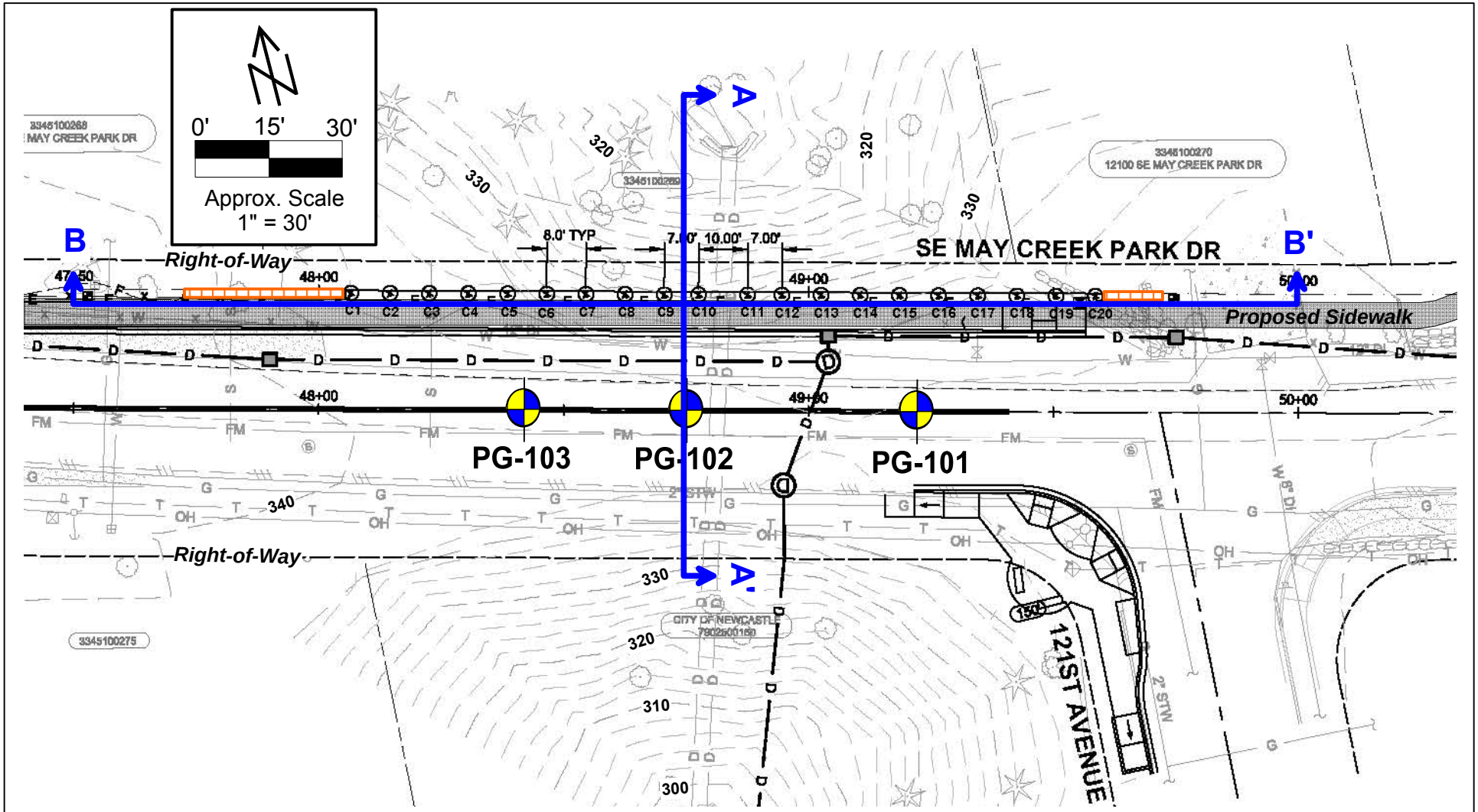
VICINITY MAP

Project No. **18-286.200**

Figure No. **1**

18-286.200 Fig 1 - Vicinity Map.grf 2/14/22 (5:26:50) SPS

18-286.200 Fig 2 Site Plan.grf 2/14/22 (16:34) STS



Legend:

- Approx. Test Boring Location (PanGEO 2021)
- Location of Subsurface Profiles (see Figures 3 and 4)
- Modular Concrete Block Wall

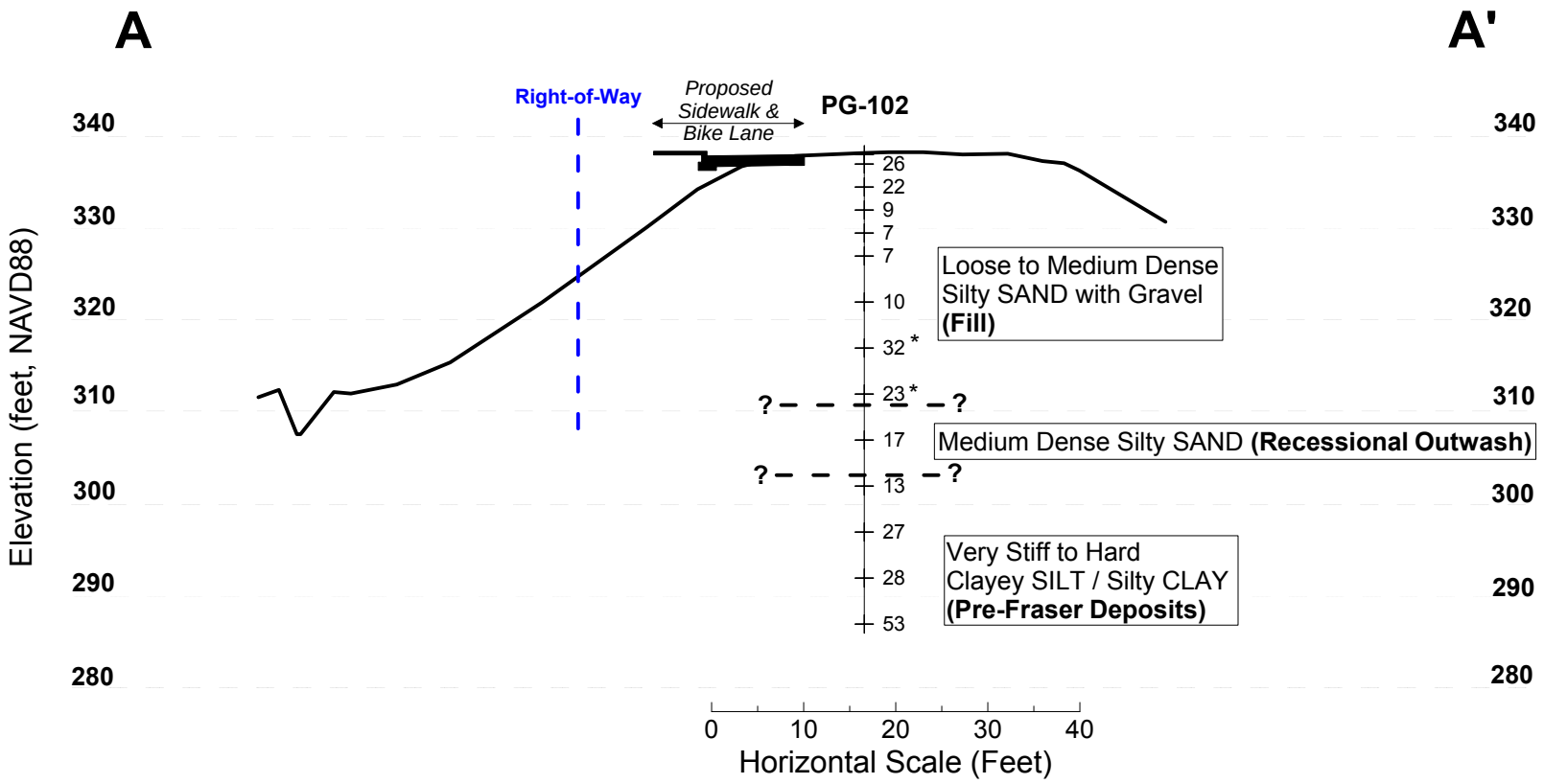
Note: Base map modified from SE May Creek Park Drive SE Non-Motorized Improvements, Retaining Wall "C" Plan & Profile provided by Gray & Osborne, dated November 2021.

PanGEO INCORPORATED

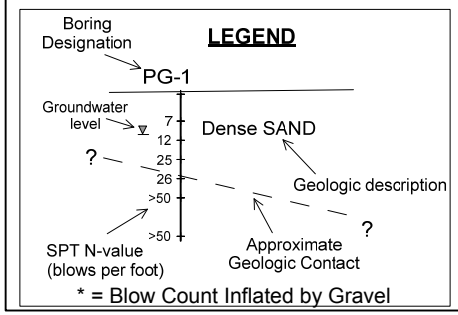
SE May Creek Park Drive Non-Motorized Improvements Gypsy Creek Ravine Newcastle, WA

SITE AND EXPLORATION PLAN

Project No.	Figure No.
18-286.200	**2**



Notes:
1. Ground profile based on Station 48+75 cross-section provided by Gray & Osborne.
2. See Figure 2 for location of Section A-A'.
3. See report text for a detailed explanation of the subsurface profile across the site.
4. The generalized soil profile is based on widely-spaced borings. Soil conditions may vary over a small distance, and the actual subsurface conditions may be different from the generalized soil profile depicted in this figure.

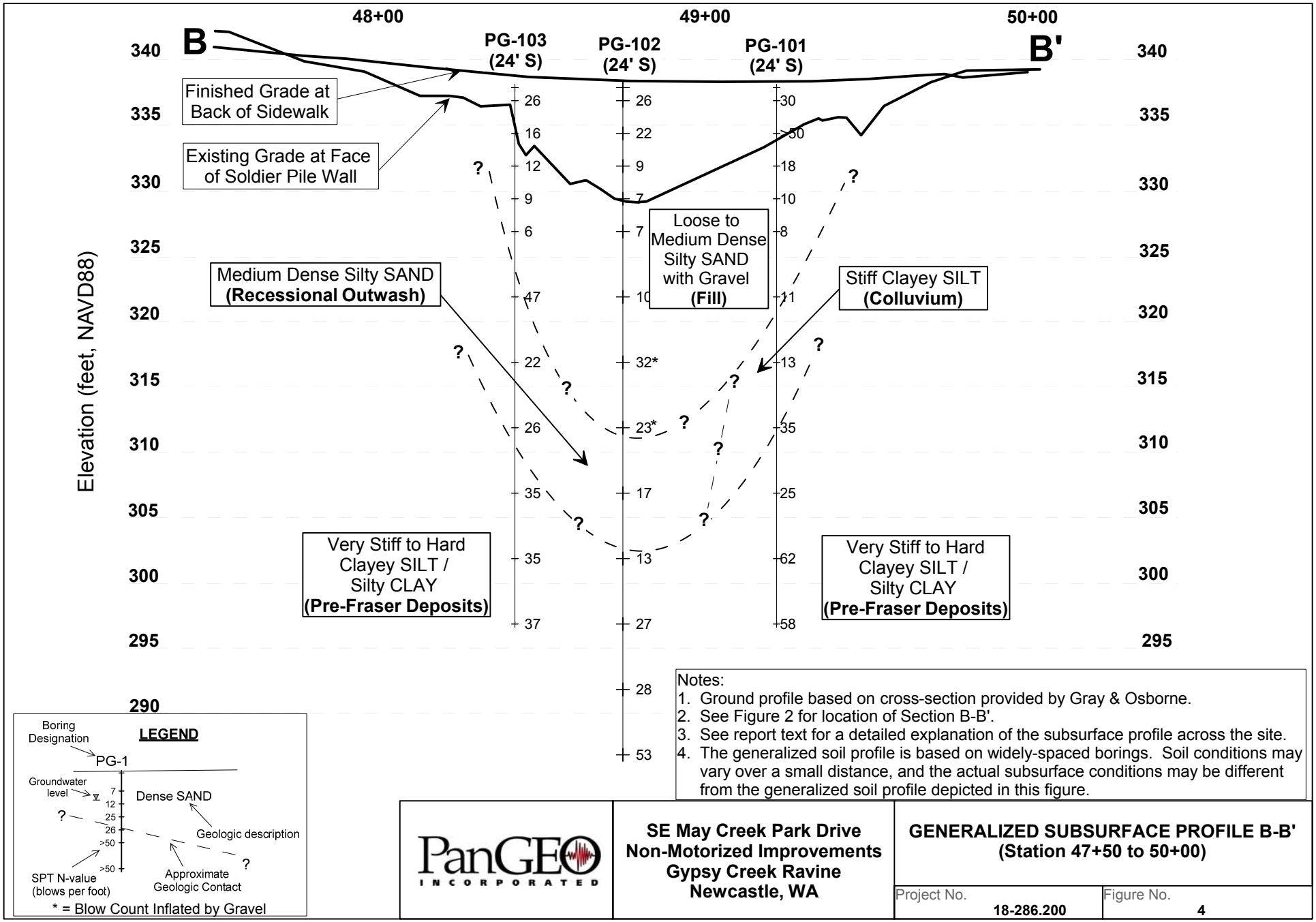


PanGEO INCORPORATED

SE May Creek Park Drive Non-Motorized Improvements Gypsy Creek Ravine Newcastle, WA

GENERALIZED SUBSURFACE PROFILE A-A' (Station 48+75)

Project No.	Figure No.
18-286.200	3



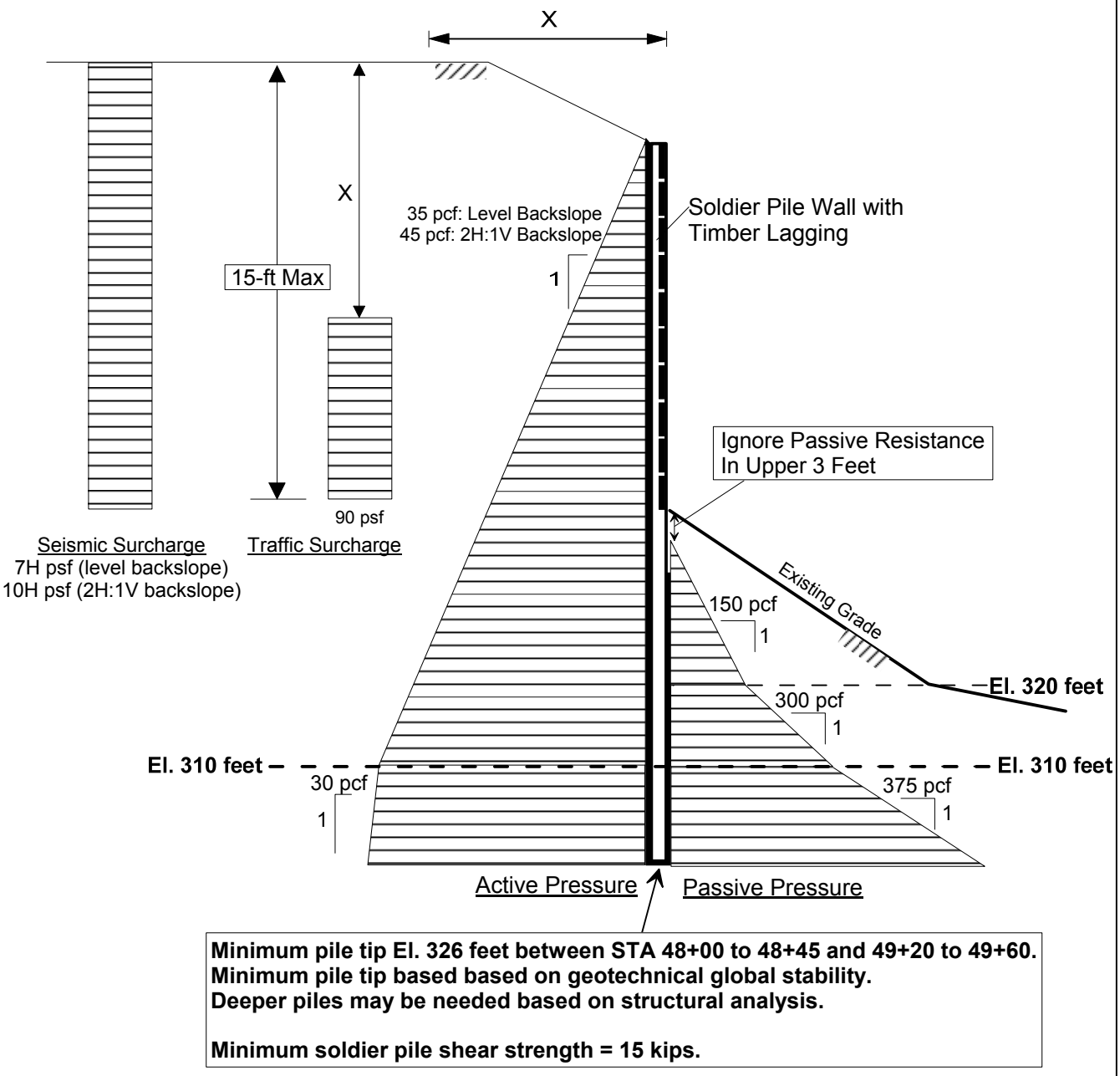
Notes:
1. Ground profile based on cross-section provided by Gray & Osborne.
2. See Figure 2 for location of Section B-B'.
3. See report text for a detailed explanation of the subsurface profile across the site.
4. The generalized soil profile is based on widely-spaced borings. Soil conditions may vary over a small distance, and the actual subsurface conditions may be different from the generalized soil profile depicted in this figure.

PanGEO INCORPORATED

SE May Creek Park Drive
Non-Motorized Improvements
Gypsy Creek Ravine
Newcastle, WA

GENERALIZED SUBSURFACE PROFILE B-B'
(Station 47+50 to 50+00)

Project No.	Figure No.
18-286.200	4



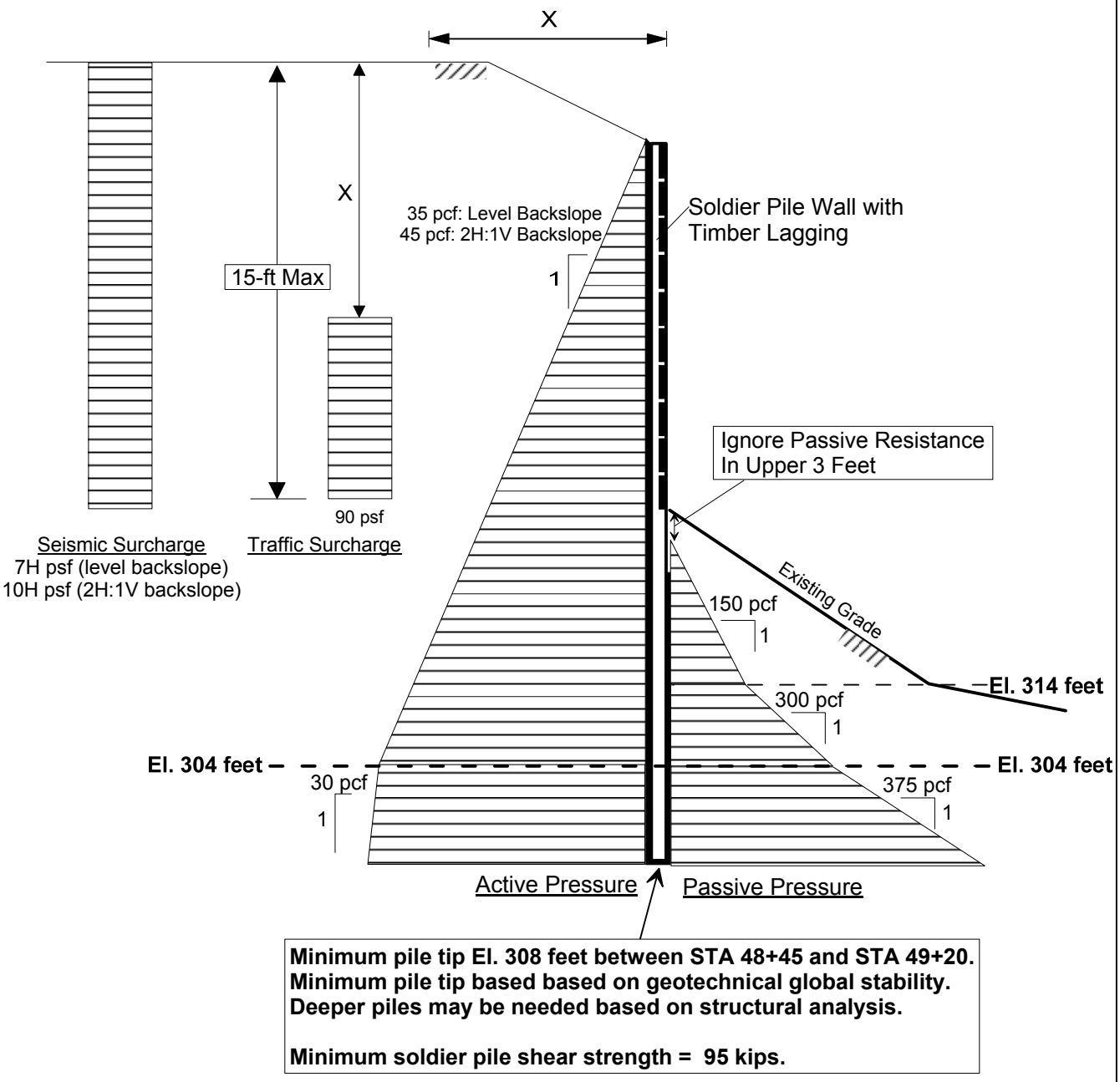
Minimum pile tip El. 326 feet between STA 48+00 to 48+45 and 49+20 to 49+60.
Minimum pile tip based based on geotechnical global stability.
Deeper piles may be needed based on structural analysis.

Minimum soldier pile shear strength = 15 kips.

Notes:

1. A factor of safety of 1.5 has been applied to the recommended passive earth pressure value. No factor of safety has been applied to the recommended active earth pressure values.
2. Active and surcharge pressures should be applied over the full width of the pile spacing above the existing grade in front of the wall, and over one pile diameter below existing grade at the toe of the wall.
3. Passive pressure should be applied to two times the diameter of the soldier piles, but no more than center to center spacing of the piles.
4. Permanent lagging should be designed for the full active earth pressure as a uniform load applied along the effective lagging span (AASHTO LRFD Section 11.8.5.2).
5. Refer to report text for additional discussions.

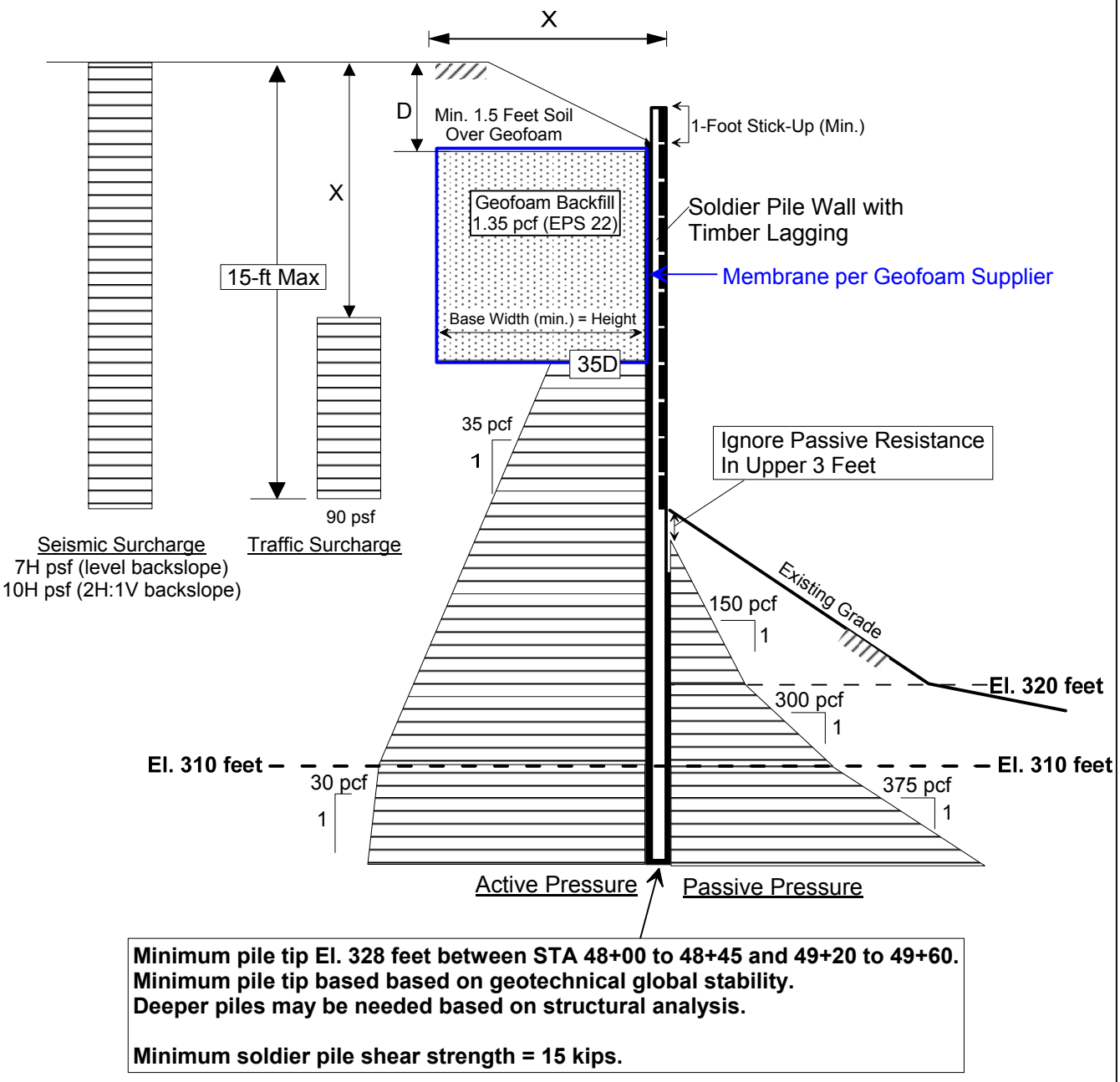
PanGEO INCORPORATED	**SE May Creek Park Drive Non-Motorized Improvements Gypsy Creek Ravine Newcastle, WA**	**DESIGN LATERAL PRESSURES CANTILEVERED SOLDIER PILE WALL (STA 48+00 to 48+45 and 49+20 to 49+60)**	
		Project No. **18-286.200**	Figure No. **5**



Notes:

1. A factor of safety of 1.5 has been applied to the recommended passive earth pressure value. No factor of safety has been applied to the recommended active earth pressure values.
2. Active and surcharge pressures should be applied over the full width of the pile spacing above the existing grade at toe of the wall, and over one pile diameter below existing grade at the toe of the wall.
3. Passive pressure should be applied to two times the diameter of the soldier piles.
4. Lagging should be designed for the full active earth pressure as a uniform load applied along the effective lagging span (AASHTO LRFD Section 11.8.5.2).
5. Refer to report text for additional discussions.

PanGEO INCORPORATED	**SE May Creek Park Drive Non-Motorized Improvements Gypsy Creek Ravine Newcastle, WA**	**DESIGN LATERAL PRESSURES CANTILEVERED SOLDIER PILE WALL (STA 48+45 to STA 49+20)** Project No. **18-286.200** Figure No. **6**



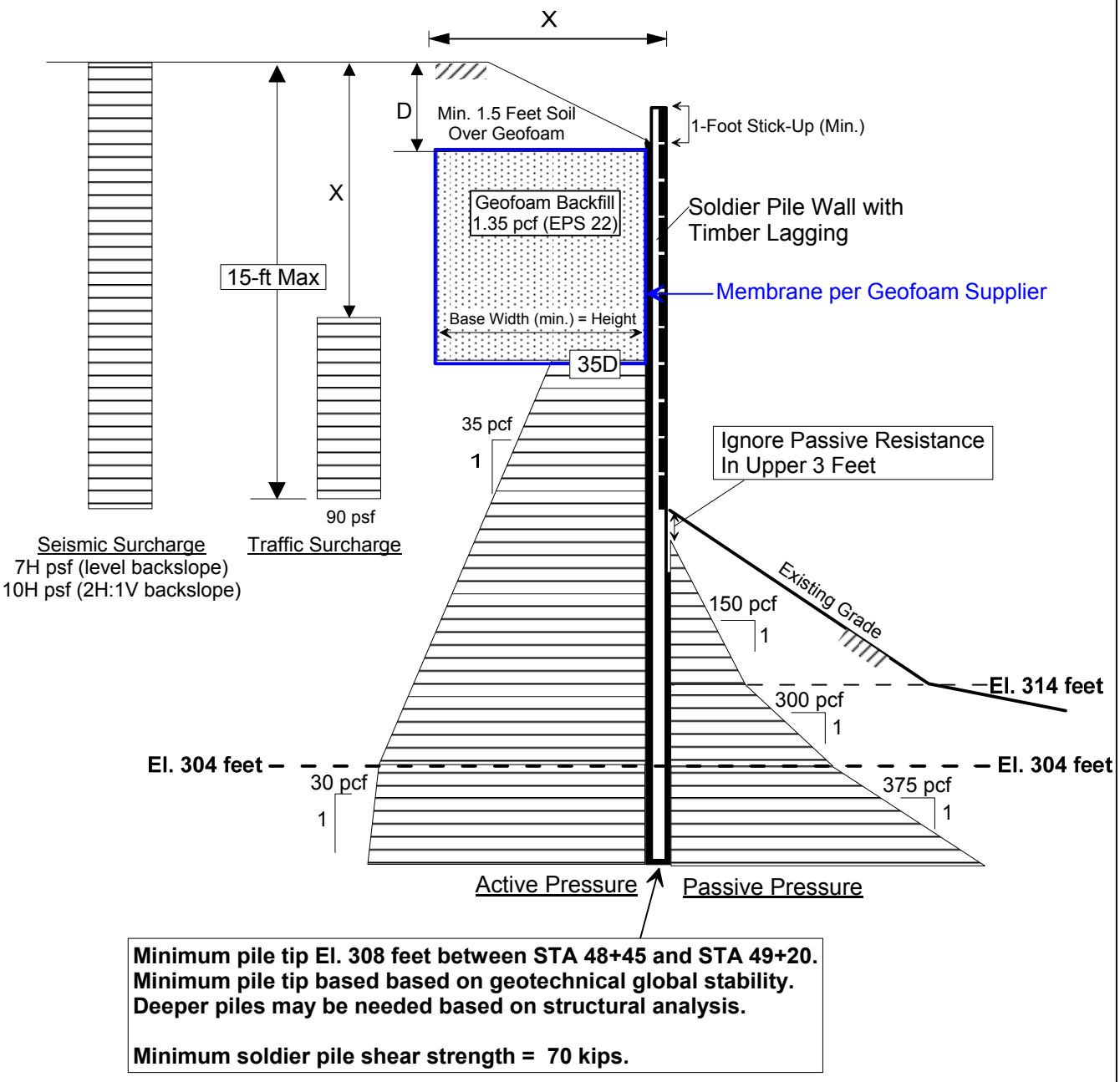
Minimum pile tip El. 328 feet between STA 48+00 to 48+45 and 49+20 to 49+60.
Minimum pile tip based based on geotechnical global stability.
Deeper piles may be needed based on structural analysis.

Minimum soldier pile shear strength = 15 kips.

Notes:

1. A factor of safety of 1.5 has been applied to the recommended passive earth pressure value. No factor of safety has been applied to the recommended active earth pressure values.
2. Active and surcharge pressures should be applied over the full width of the pile spacing above the existing grade in front of the wall, and over one pile diameter below existing grade at the toe of the wall.
3. Passive pressure should be applied to two times the diameter of the soldier piles, but no more than center to center spacing of the piles.
4. Permanent lagging should be designed for the full active earth pressure as a uniform load applied along the effective lagging span (AASHTO LRFD Section 11.8.5.2).
5. Refer to report text for additional discussions.

PanGEO INCORPORATED	**SE May Creek Park Drive** **Non-Motorized Improvements** **Gypsy Creek Ravine** **Newcastle, WA**	**DESIGN LATERAL PRESSURES** **CANTILEVERED SOLDIER PILE WALL** **WITH GEOFOAM BACKFILL** **(STA 48+00 to 48+45 and 49+20 to 49+60)**
		Project No. **18-286.200** / Figure No. **7**



Minimum pile tip El. 308 feet between STA 48+45 and STA 49+20.
Minimum pile tip based based on geotechnical global stability.
Deeper piles may be needed based on structural analysis.

Minimum soldier pile shear strength = 70 kips.

Notes:

1. A factor of safety of 1.5 has been applied to the recommended passive earth pressure value. No factor of safety has been applied to the recommended active earth pressure values.
2. Active and surcharge pressures should be applied over the full width of the pile spacing above the existing grade in front of the wall, and over one pile diameter below existing grade at the toe of the wall.
3. Passive pressure should be applied to two times the diameter of the soldier piles, but no more than center to center spacing of the piles.
4. Permanent lagging should be designed for the full active earth pressure as a uniform load applied along the effective lagging span (AASHTO LRFD Section 11.8.5.2).
5. Refer to report text for additional discussions.

PanGEO INCORPORATED	**SE May Creek Park Drive** **Non-Motorized Improvements** **Gypsy Creek Ravine** **Newcastle, WA**	**DESIGN LATERAL PRESSURES** **CANTILEVERED SOLDIER PILE WALL** **WITH GEOFOAM BACKFILL** **(STA 48+45 to STA 49+20)**
		Project No. **18-286.200** / Figure No. **8**

APPENDIX A

SUMMARY TEST BORING LOGS

RELATIVE DENSITY / CONSISTENCY

SAND / GRAVEL			SILT / CLAY		
Density	SPT N-values	Approx. Relative Density (%)	Consistency	SPT N-values	Approx. Undrained Shear Strength (psf)
Very Loose	<4	<15	Very Soft	<2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Med. Dense	10 to 30	35 - 65	Med. Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	>50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	>30	>4000

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		GROUP DESCRIPTIONS	
Gravel 50% or more of the coarse fraction retained on the #4 sieve. Use dual symbols (eg. GP-GM) for 5% to 12% fines.	GRAVEL (<5% fines)	GW	Well-graded GRAVEL
		GP	Poorly-graded GRAVEL
	GRAVEL (>12% fines)	GM	Silty GRAVEL
		GC	Clayey GRAVEL
Sand 50% or more of the coarse fraction passing the #4 sieve. Use dual symbols (eg. SP-SM) for 5% to 12% fines.	SAND (<5% fines)	SW	Well-graded SAND
		SP	Poorly-graded SAND
	SAND (>12% fines)	SM	Silty SAND
		SC	Clayey SAND
Silt and Clay 50%or more passing #200 sieve	Liquid Limit < 50	ML	SILT
		CL	Lean CLAY
		OL	Organic SILT or CLAY
	Liquid Limit > 50	MH	Elastic SILT
		CH	Fat CLAY
		OH	Organic SILT or CLAY
Highly Organic Soils		PT	PEAT

Notes: 1. Soil exploration logs contain material descriptions based on visual observation and field tests using a system modified from the Uniform Soil Classification System (USCS). Where necessary laboratory tests have been conducted (as noted in the "Other Tests" column), unit descriptions may include a classification. Please refer to the discussions in the report text for a more complete description of the subsurface conditions.

2. The graphic symbols given above are not inclusive of all symbols that may appear on the borehole logs. Other symbols may be used where field observations indicated mixed soil constituents or dual constituent materials.

DESCRIPTIONS OF SOIL STRUCTURES

Layered: Units of material distinguished by color and/or composition from material units above and below

Laminated: Layers of soil typically 0.05 to 1mm thick, max. 1 cm

Lens: Layer of soil that pinches out laterally

Interlayered: Alternating layers of differing soil material

Pocket: Erratic, discontinuous deposit of limited extent

Homogeneous: Soil with uniform color and composition throughout

Fissured: Breaks along defined planes

Slickensided: Fracture planes that are polished or glossy

Blocky: Angular soil lumps that resist breakdown

Disrupted: Soil that is broken and mixed

Scattered: Less than one per foot

Numerous: More than one per foot

BCN: Angle between bedding plane and a plane normal to core axis

COMPONENT DEFINITIONS

COMPONENT	SIZE / SIEVE RANGE	COMPONENT	SIZE / SIEVE RANGE
Boulder:	> 12 inches	Sand	
Cobbles:	3 to 12 inches	Coarse Sand:	#4 to #10 sieve (4.5 to 2.0 mm)
Gravel		Medium Sand:	#10 to #40 sieve (2.0 to 0.42 mm)
Coarse Gravel:	3 to 3/4 inches	Fine Sand:	#40 to #200 sieve (0.42 to 0.074 mm)
Fine Gravel:	3/4 inches to #4 sieve	Silt	0.074 to 0.002 mm
		Clay	<0.002 mm

TEST SYMBOLS

for In Situ and Laboratory Tests listed in "Other Tests" column.

ATT	Atterberg Limit Test
Comp	Compaction Tests
Con	Consolidation
DD	Dry Density
DS	Direct Shear
%F	Fines Content
GS	Grain Size
Perm	Permeability
PP	Pocket Penetrometer
R	R-value
SG	Specific Gravity
TV	Torvane
TXC	Triaxial Compression
UCC	Unconfined Compression

SYMBOLS

Sample/In Situ test types and intervals

- 2-inch OD Split Spoon, SPT (140-lb. hammer, 30" drop)
- 3.25-inch OD Spilt Spoon (300-lb hammer, 30" drop)
- Non-standard penetration test (see boring log for details)
- Thin wall (Shelby) tube
- Grab
- Rock core
- Vane Shear

MONITORING WELL

- Groundwater Level at time of drilling (ATD)
- Static Groundwater Level
- Cement / Concrete Seal
- Bentonite grout / seal
- Silica sand backfill
- Slotted tip
- Slough
- Bottom of Boring

MOISTURE CONTENT

Dry	Dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water

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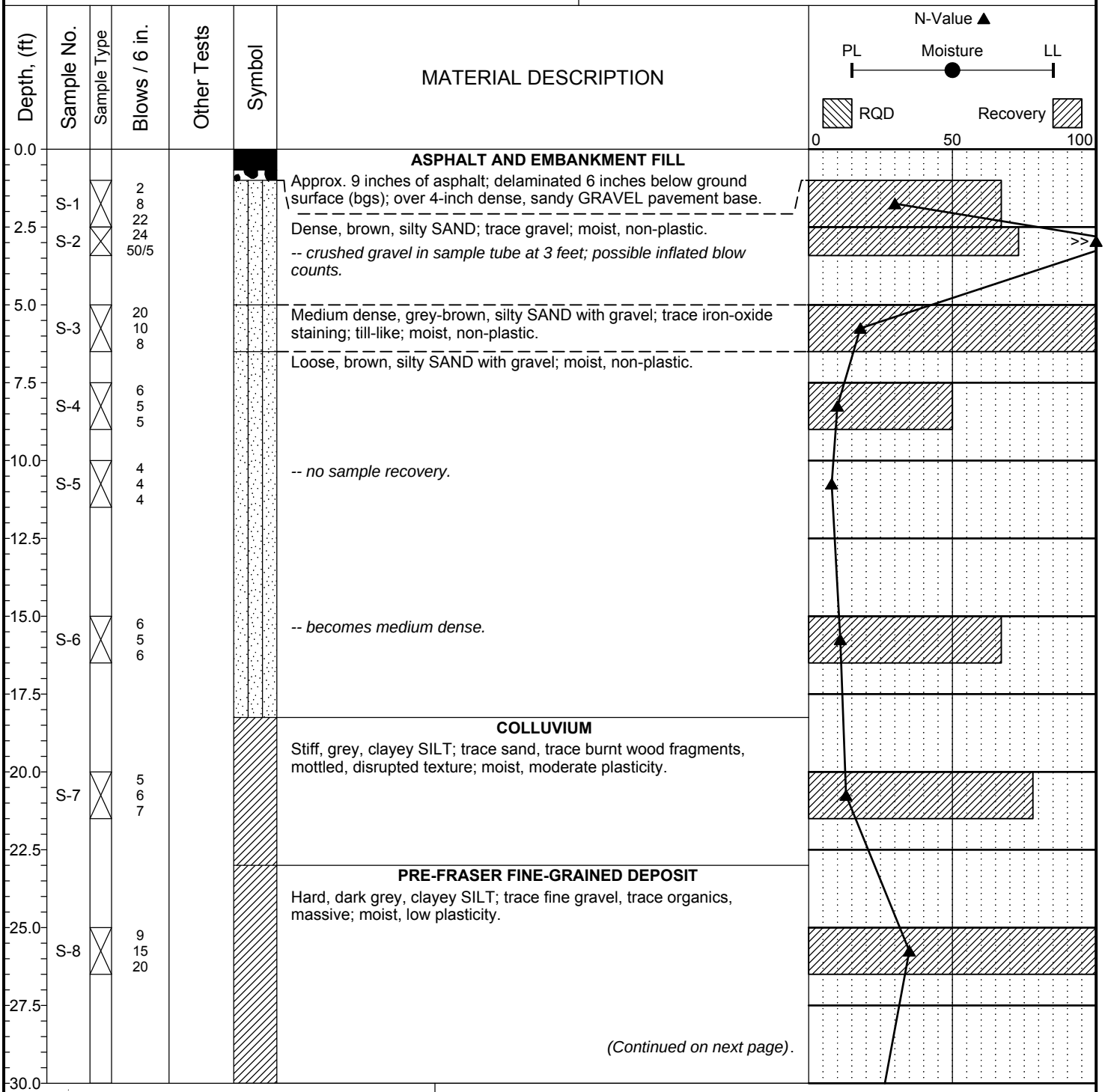
Terms and Symbols for Boring and Test Pit Logs

Figure A-1

Project:	SE May Creek Park Drive - Gypsy Creek Ravine	Surface Elevation:	338 feet
Job Number:	18-286.200	Top of Casing Elev.:	N/A
Location:	Newcastle, WA	Drilling Method:	XL trailer drill, hollow stem auger
Coordinates:	Northing: 193709, Easting: 1307945	Sampling Method:	SPT w/rope & cathead



Completion Depth:	41.5ft
Date Borehole Started:	4/7/21
Date Borehole Completed:	4/7/21
Logged By:	S. Scott
Drilling Company:	Geologic Drill Partners

Remarks: Standard penetration test (SPT) sampler driven with a 140 lb. safety hammer w/30" drop. Hammer operated with a rope and cathead mechanism. Surface elevation based on a topographic survey provided by Gray & Osborne, Inc. **Datum: WA State Plane N / NAVD88**

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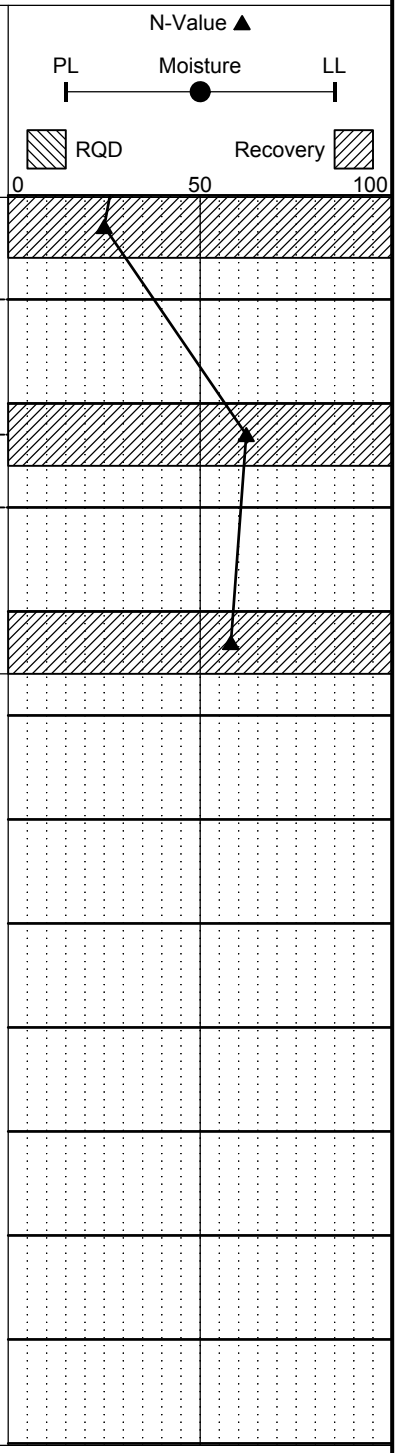
LOG OF TEST BORING PG-101

Figure A-2

The stratification lines represent approximate boundaries. The transition may be gradual.

Project:	SE May Creek Park Drive - Gypsy Creek Ravine	Surface Elevation:	338 feet
Job Number:	18-286.200	Top of Casing Elev.:	N/A
Location:	Newcastle, WA	Drilling Method:	XL trailer drill, hollow stem auger
Coordinates:	Northing: 193709, Easting: 1307945	Sampling Method:	SPT w/rope & cathead

Depth, (ft)	Sample No.	Sample Type	Blows / 6 in.	Other Tests	Symbol	MATERIAL DESCRIPTION
30.0	S-9		5 9 16			**PRE-FRASER FINE-GRAINED DEPOSIT CLAY** Very stiff, blue-grey, clayey SILT; trace fine gravel, massive; moist, low plasticity*(Continued)*.
32.5						Very dense, grey-brown, silty very fine SAND; trace iron-oxide staining; massive; moist, non-plastic.
35.0	S-10		18 22 40			Very dense, blue-grey, sandy SILT; trace gravel; massive; moist, non-plastic.
37.5						Hard, blue-grey, clayey SILT; trace gravel, laminated to massive; moist, low plasticity.
40.0	S-11		11 23 35			
42.5						Boring terminated at approximately 41.5 feet below ground surface. No groundwater was observed at time of drilling.
45.0						
47.5						
50.0						
52.5						
55.0						
57.5						
60.0						



Completion Depth:	41.5ft
Date Borehole Started:	4/7/21
Date Borehole Completed:	4/7/21
Logged By:	S. Scott
Drilling Company:	Geologic Drill Partners

Remarks: Standard penetration test (SPT) sampler driven with a 140 lb. safety hammer w/30" drop. Hammer operated with a rope and cathead mechanism. Surface elevation based on a topographic survey provided by Gray & Osborne, Inc. **Datum: WA State Plane N / NAVD88**

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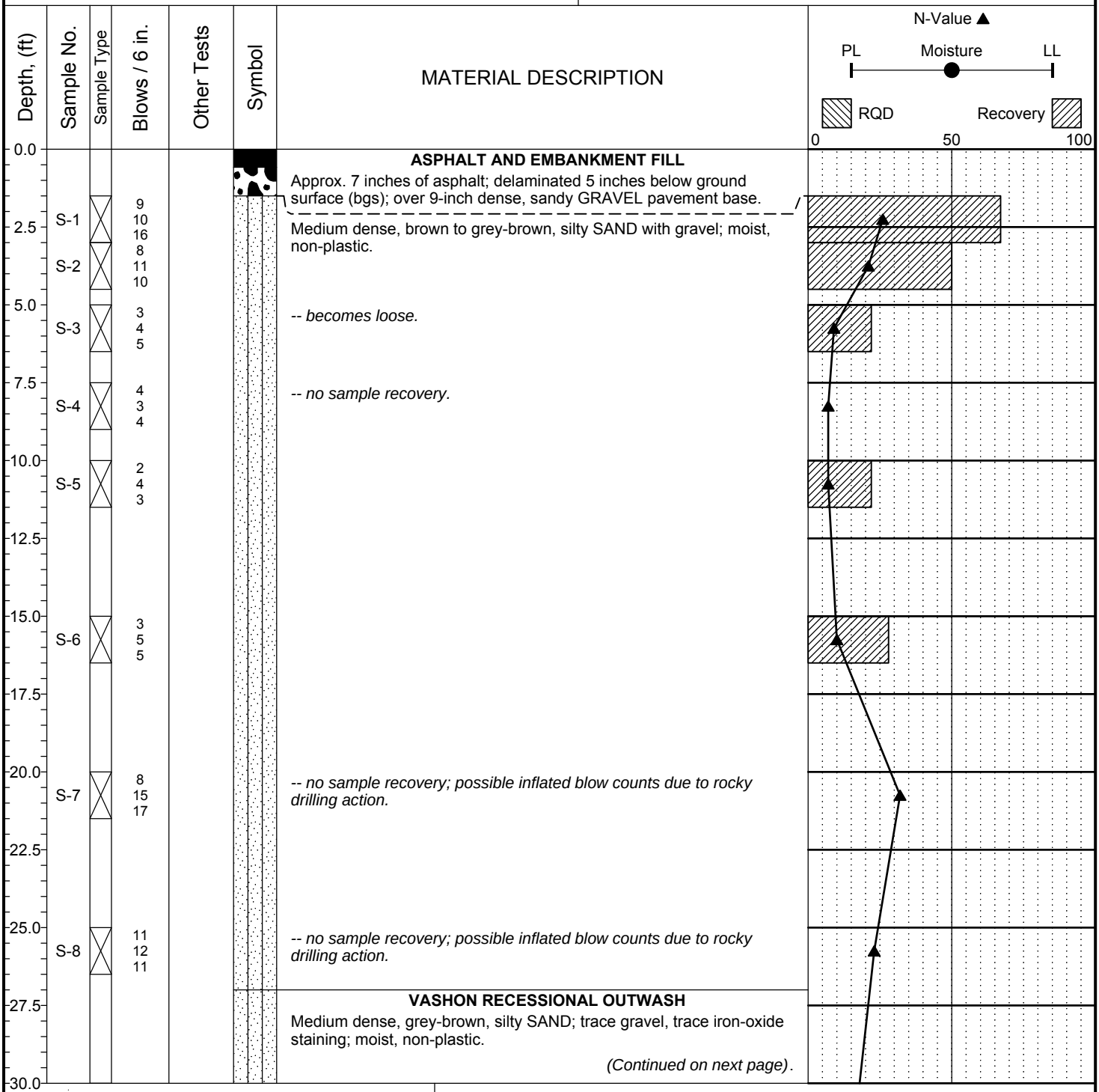
LOG OF TEST BORING PG-101

Figure A-2

The stratification lines represent approximate boundaries. The transition may be gradual.

Project:	SE May Creek Park Drive - Gypsy Creek Ravine	Surface Elevation:	338 feet
Job Number:	18-286.200	Top of Casing Elev.:	N/A
Location:	Newcastle, WA	Drilling Method:	XL trailer drill, hollow stem auger
Coordinates:	Northing: 193722, Easting: 1307900	Sampling Method:	SPT w/rope & cathead



Completion Depth:	51.5ft
Date Borehole Started:	4/7/21
Date Borehole Completed:	4/7/21
Logged By:	S. Scott
Drilling Company:	Geologic Drill Partners

Remarks: Standard penetration test (SPT) sampler driven with a 140 lb. safety hammer w/30" drop. Hammer operated with a rope and cathead mechanism. Surface elevation based on a topographic survey provided by Gray & Osborne, Inc. **Datum: WA State Plane N / NAVD88**

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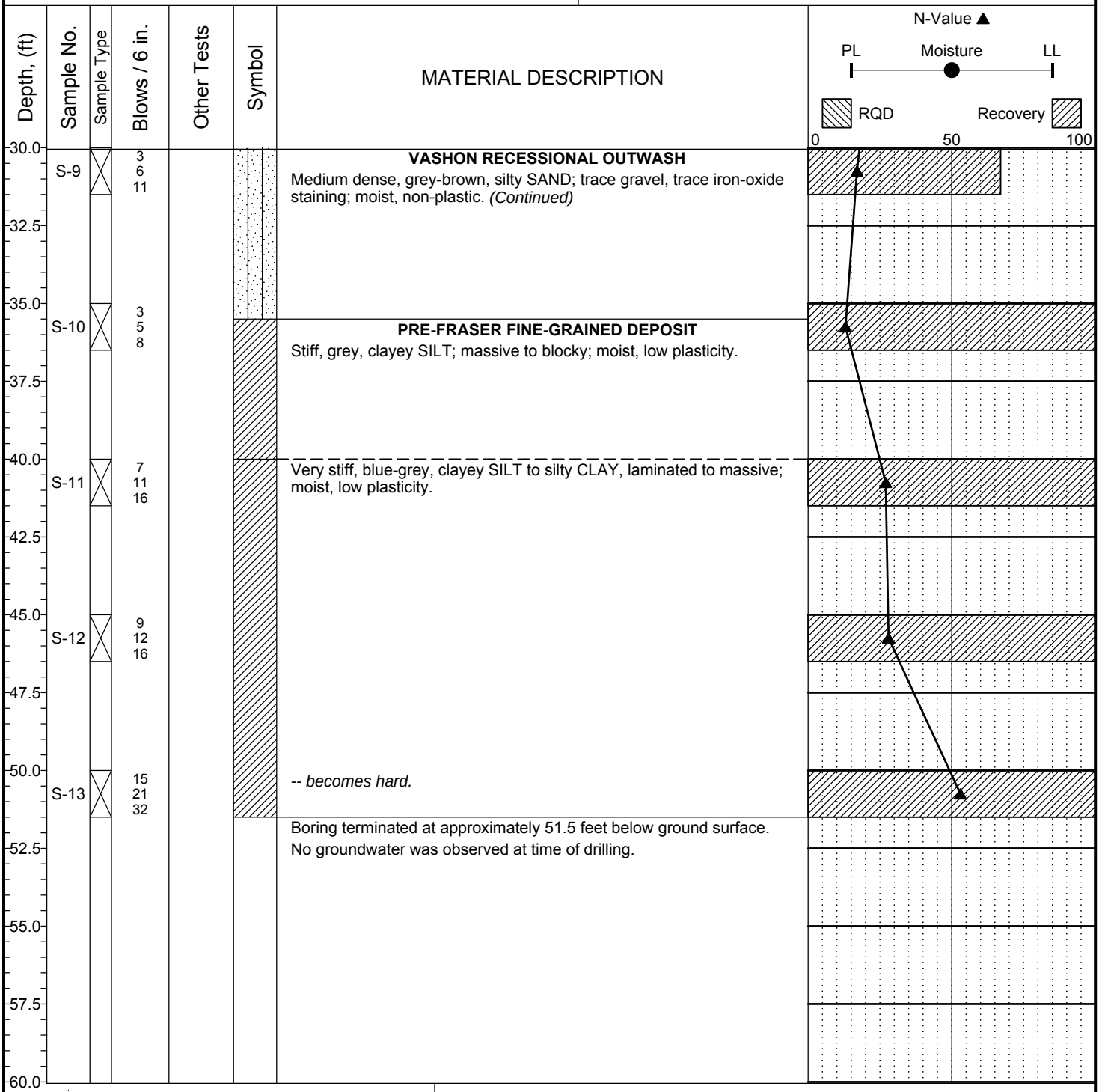
LOG OF TEST BORING PG-102

Figure A-3

The stratification lines represent approximate boundaries. The transition may be gradual.

Project:	SE May Creek Park Drive - Gypsy Creek Ravine	Surface Elevation:	338 feet
Job Number:	18-286.200	Top of Casing Elev.:	N/A
Location:	Newcastle, WA	Drilling Method:	XL trailer drill, hollow stem auger
Coordinates:	Northing: 193722, Easting: 1307900	Sampling Method:	SPT w/rope & cathead



Completion Depth:	51.5ft
Date Borehole Started:	4/7/21
Date Borehole Completed:	4/7/21
Logged By:	S. Scott
Drilling Company:	Geologic Drill Partners

Remarks: Standard penetration test (SPT) sampler driven with a 140 lb. safety hammer w/30" drop. Hammer operated with a rope and cathead mechanism. Surface elevation based on a topographic survey provided by Gray & Osborne, Inc. **Datum: WA State Plane N / NAVD88**

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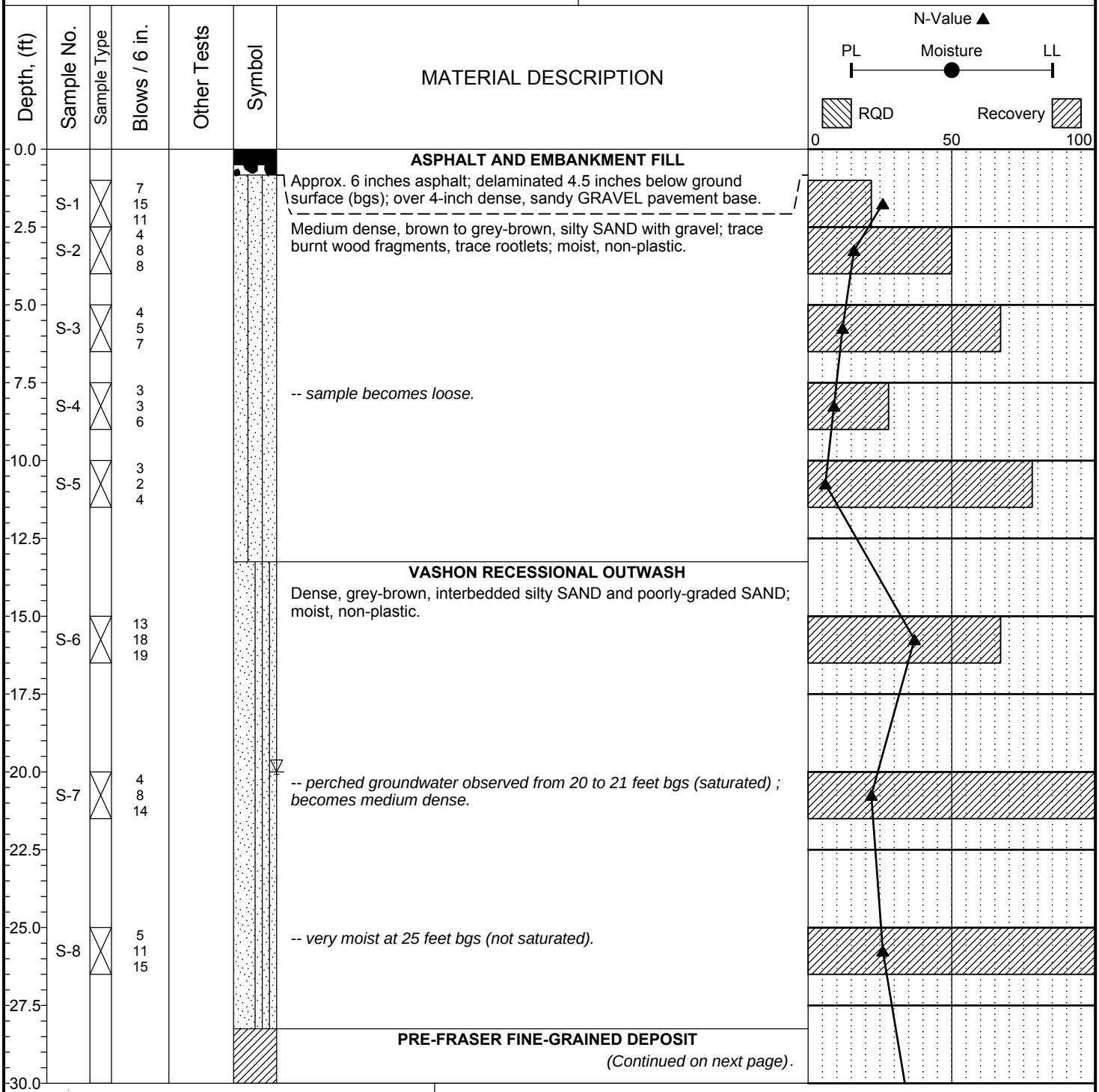
LOG OF TEST BORING PG-102

Figure A-3

The stratification lines represent approximate boundaries. The transition may be gradual.

Project:	SE May Creek Park Drive - Gypsy Creek Ravine	Surface Elevation:	338 feet
Job Number:	18-286.200	Top of Casing Elev.:	N/A
Location:	Newcastle, WA	Drilling Method:	XL trailer drill, hollow stem auger
Coordinates:	Northing: 193731, Easting: 1307867	Sampling Method:	SPT w/rope & cathead



Completion Depth:	41.5ft
Date Borehole Started:	4/7/21
Date Borehole Completed:	4/7/21
Logged By:	S. Scott
Drilling Company:	Geologic Drill Partners

Remarks: Standard penetration test (SPT) sampler driven with a 140 lb. safety hammer w/30" drop. Hammer operated with a rope and cathead mechanism. Surface elevation based on a topographic survey provided by Gray & Osborne, Inc. **Datum: WA State Plane N / NAVD88**

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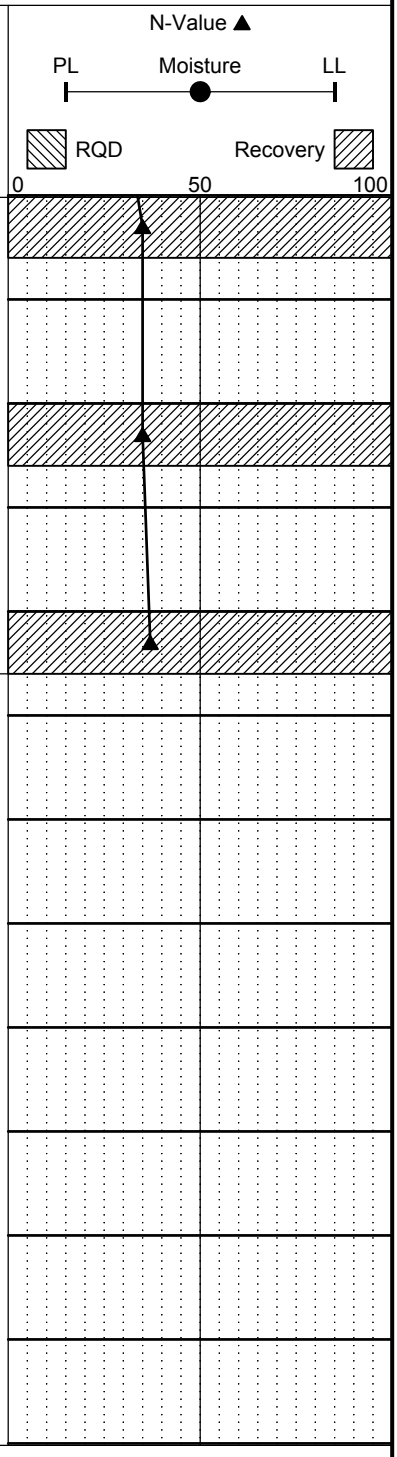
LOG OF TEST BORING PG-103

Figure A-4

The stratification lines represent approximate boundaries. The transition may be gradual.

Project:	SE May Creek Park Drive - Gypsy Creek Ravine	Surface Elevation:	338 feet
Job Number:	18-286.200	Top of Casing Elev.:	N/A
Location:	Newcastle, WA	Drilling Method:	XL trailer drill, hollow stem auger
Coordinates:	Northing: 193731, Easting: 1307867	Sampling Method:	SPT w/rope & cathead

Depth, (ft)	Sample No.	Sample Type	Blows / 6 in.	Other Tests	Symbol	MATERIAL DESCRIPTION
30.0	S-9		9 15 20			**PRE-FRASER FINE-GRAINED DEPOSIT** Hard, blue-grey, clayey SILT to silty CLAY; trace sand seams, massive; moist, low plasticity *(Continued)*.
32.5						
35.0	S-10		11 16 19			
37.5						
40.0	S-11		10 16 21			
						Boring terminated at approximately 41.5 feet below ground surface. Perched groundwater was observed from approximately 20 to 21 feet bgs at time of drilling.
42.5						
45.0						
47.5						
50.0						
52.5						
55.0						
57.5						
60.0						



Completion Depth:	41.5ft
Date Borehole Started:	4/7/21
Date Borehole Completed:	4/7/21
Logged By:	S. Scott
Drilling Company:	Geologic Drill Partners

Remarks: Standard penetration test (SPT) sampler driven with a 140 lb. safety hammer w/30" drop. Hammer operated with a rope and cathead mechanism. Surface elevation based on a topographic survey provided by Gray & Osborne, Inc. **Datum: WA State Plane N / NAVD88**

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LOG OF TEST BORING PG-103

Figure A-4

The stratification lines represent approximate boundaries. The transition may be gradual.