The Tulalip Tribes of Washington

I-5 / 4th ST and 88th ST NE Corridor Improvements

Tulalip Tribes Project No. 2026-014

Contract Documents

June 2026

Appendices

I-5 / 4th ST and 88th ST NE Corridor Improvements

Tulalip Tribes Project No.: 2026-014

Contract Documents

Prepared for

The Tulalip Tribes
6406 Marine Drive
Tulalip, WA 98271

Prepared by

Parametrix
1019 39th Ave SE Suite 100
Puyallup, WA 98374
253-604-6600
www.parametrix.com

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TABLE OF CONTENTS

VOLUME 1

DIVISION 0 – BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF CONTRACT

NOTICE TO BIDDERS
CONFIDENTIALITY AGREEMENT
INSTRUCTIONS TO BIDDERS
BID PROPOSAL FORMS
- BID PROPOSAL FORM
- BID SCHEDULE
- BIDDER'S CERTIFICATION
- NON-COLLUSION DECLARATION
- TERO SUB-CONTRACTORS OR SUPPLIERS
- WSDOT SUBCONTRACTOR LIST
- CONTRACTOR CERTIFICATION - WAGE LAW COMPLIANCE

NAOB WRITTEN CONFIRMATION
BID GUARANTY AND CONTRACT BOND
- FORM OF BID GUARANTY AND CONTRACT BOND
- STATEMENT OF INTENDED SURETY
- BID PROPOSAL BOND
- PAYMENT BOND
- PERFORMANCE BOND

TRIBAL EMPLOYMENT RIGHTS OFFICE (TERO)
CONTRACT FORMS
- CONSTRUCTION CONTRACT (SAMPLE)
- INTERIM WAIVER AND RELEASE OF CLAIMS
- FINAL WAIVER AND RELEASE OF CLAIMS

SPECIAL PROVISIONS

INTRODUCTION TO THE SPECIAL PROVISIONS SP-1

DIVISION 1
GENERAL REQUIREMENTS

1-01 DEFINITIONS AND TERMS SP-4
1-02 BID PROCEDURES AND CONDITIONS SP-10
1-03 AWARD AND EXECUTION OF CONTRACT SP-12
1-04 SCOPE OF THE WORK SP-13
1-05 CONTROL OF WORK SP-15
1-06 CONTROL OF MATERIAL SP-31
1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC SP-36
1-08 PROSECUTION AND PROGRESS SP-81
1-09 MEASUREMENT AND PAYMENT SP-89
1-10 TEMPORARY TRAFFIC CONTROL SP-92

DIVISION 2
EARTHWORK

2-01 CLEARING, GRUBBING AND ROADSIDE CLEANUP SP-97
2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS SP-97
2-03 ROADWAY EXCAVATION AND EMBANKMENT SP-100
2-09 STRUCTURE EXCAVATION SP-101
2-20 LOW-DENSITY CELLULAR CONCRETE SP-109

TABLE OF CONTENTS (CONTINUED)

DIVISION 4
BASES

4-04 BALLAST AND CRUSHED SURFACING SP-115

DIVISION 5
SURFACE TREATMENTS AND PAVEMENTS

5-04 HOT MIX ASPHALT SP-117
5-05 CEMENT CONCRETE PAVEMENT SP-123

DIVISION 6
STRUCTURES

6-01 GENERAL REQUIREMENTS FOR STRUCTURES SP-127
6-02 CONCRETE STRUCTURES SP-127
6-06 BRIDGE RAILINGS SP-130
6-13 STRUCTURAL EARTH WALLS SP-131
6-16 SOLDIER PILE AND SOLDIER PILE TIEBACK WALLS SP-142
6-19 SHAFTS SP-144

DIVISION 7
DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS SP-145
7-06 STORMWATER VAULTS AND DRAINAGE STRUCTURES SP-148
7-08 GENERAL PIPE INSTALLATION REQUIREMENTS SP-151
7-09 WATER MAINS SP-156
7-12 VALVES FOR WATER MAINS SP-165
7-14 FIRE HYDRANTS SP-168
7-15 SERVICE CONNECTIONS SP-168
7-17 SANITARY SEWERS SP-169

DIVISION 8
MISCELLANEOUS CONSTRUCTION

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL SP-171
8-02 ROADSIDE RESTORATION SP-171
8-03 IRRIGATION SYSTEMS SP-178
8-10 GUIDE POSTS SP-180
8-11 GUARDRAIL SP-181
8-12 CHAIN LINK FENCE AND WIRE FENCE SP-181
8-14 CEMENT CONCRETE SIDEWALKS SP-182
8-15 ROUNDABOUT COBBLES SP-183
8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, INTELLIGENT TRANSPORTATION SYSTEMS, AND ELECTRICAL SP-184
8-26 STORMWATER TREATMENT VAULT – OPTION 1 (SUBGRADE BIOFILTRATION) ... SP-235
8-27 STORMWATER TREATMENT VAULT – OPTION 2 (SUBGRADE BIOFILTRATION) ... SP-237
8-30 STREAM, RIVERS, AND WATERBODIES SP-238
8-31 TEMPORARY STREAM DIVERSION SP-239

TABLE OF CONTENTS (CONTINUED)

DIVISION 9
MATERIALS

9-05 DRAINAGE STRUCTURES AND CULVERTS SP-245
9-15 IRRIGATION SYSTEM SP-245

VOLUME 2

DIVISION 10
Sanitary Sewer Pump Station

DIVISION 01 – GENERAL REQUIREMENTS

01 11 00	Summary of Work
01 12 16	Work Sequence
01 33 00	Submittal Procedures
01 43 33	Manufacturer's Services
01 65 10	Testing, Training, and Commissioning
01 77 00	Closeout Procedures
01 78 23	Operation and Maintenance Data
01 99 99	Forms

DIVISION 02 – EXISTING CONDITIONS

02 41 00	Demolition

DIVISION 03 – CONCRETE

03 15 19	Anchors, Inserts, and Embedded Products
03 30 01	Cast-In-Place Concrete
03 40 00	Precast Concrete Vaults
03 60 00	Grouting

DIVISION 08 – OPENINGS

08 34 00	Floor Doors

DIVISION 09 – FINISHES

09 90 00	Painting

DIVISION 13 – SPECIAL CONSTRUCTION

13 05 41	Seismic Restraint Requirements for Nonstructural Components

DIVISION 22 – PLUMBING

22 05 00	General Requirements for Piping
22 05 29	Pipe Hangers and Supports
22 06 00	Pipe Schedule
22 13 13	Facility Sanitary Sewer Piping
22 13 18	Facility Sanitary Sewerage Valves
22 13 29	Submersible Sewage Pumps

DIVISION 26 – ELECTRICAL

26 05 11	Basic Electrical Methods and Materials
26 05 19	Low-Voltage Wire and Cable
26 05 23	Signal Cable
26 05 26	Grounding and Bonding for Electrical Systems
26 05 29	Hangers and Supports for Electrical Systems
26 05 33	Raceway and Boxes for Electrical Systems
26 05 53	Identification for Electrical Systems
26 05 73	Short Circuit, Coordination, and Arc Flash Report
26 08 00	Electrical Testing and Commissioning
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 00	Low-Voltage Circuit Protective Devices
26 33 53	Uninterruptible Power Supplies (UPS)
26 50 00	Lighting
26 95 92	Relays

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 31 13	Chain Link Fence and Gates

DIVISION 40 – PROCESS INTERCONNECTIONS

40 61 13	Process Control System General Provisions
40 61 93	Process Control System Input/Output List
40 62 63	Operator Interface Terminals (OIT)
40 63 43	Programmable Logic Controllers
40 66 00	Network and Communication Equipment
40 68 13	Process Control Software
40 70 00	Instrumentation and Controls, General Requirements
40 70 00.01	Instrumentation Schedule
40 71 10	Magnetic Flow Meters
40 71 20	Level Instruments
40 78 00	Panel-Mounted Instruments

APPENDICES

A GEOTECHNICAL REPORT

B WAGES

C PERMITS

VOLUMES 3 AND 4

CONSTRUCTION DRAWINGS

Appendix A

Geotechnical Report

GEOTECHNICAL ENGINEERING REPORT

I-5/4th Street and 88th Street NE Corridor Improvements
Marysville, Washington

HWA Project No. 2019-127-21

Prepared for:
Parametrix Inc.

June 18, 2026

HWA GeoSciences Inc.
DBE/MWBE

Geotechnical Engineering
Pavement Engineering
Geoenvironmental Hydrogeology
Inspection & Testing

HWA GeoSciences Inc.
DBE/MWBE

June 18, 2026
HWA Project No. 2019-127-21

Parametrix Inc.
719 2nd Avenue, Suite 200
Seattle, Washington 98104

Attention: Happy Longfellow, P.E., and Steve Olling, P.E.

Subject: **GEOTECHNICAL ENGINEERING REPORT**
I-5/4th Street and 88th Street NE Corridor Improvements
Marysville, Washington

Dear Mr. Longfellow and Mr. Olling:

As requested, HWA GeoSciences Inc. (HWA) performed a geotechnical site investigation and a geotechnical engineering evaluation for the I-5/4th Street and 88th Street NE Corridor Improvements project in Marysville, Washington. The attached geotechnical engineering report summarizes the results of our work and our recommendations to date.

We appreciate the opportunity to provide geotechnical engineering services on this project. If you have any questions regarding this report or require additional information or services, please contact us at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

Sandy Brodahl, P.E.
Geotechnical Engineer, Principal

Enclosure: Geotechnical Engineering Report

TABLE OF CONTENTS

Page

1. INTRODUCTION....1
1.1 GENERAL....1
1.2 PROJECT DESCRIPTION....1
2. FIELD AND LABORATORY TESTING....2
2.1 GEOTECHNICAL FIELD INVESTIGATION....2
2.1.1 General....2
2.1.2 4th Street NE/Marine Dr NE Field Investigation....3
2.1.3 88th Street NE Field Investigation....3
2.2 PAVEMENT CORING....4
2.3 GEOTECHNICAL LABORATORY TESTING....6
2.4 EXPLORATIONS BY OTHERS....6
3. SITE CONDITIONS....7
3.1 SURFACE CONDITIONS....7
3.1.1 4th Street NE/Marine Drive NE Surface Conditions....7
3.1.2 88th Street NE Surface Conditions....8
3.2 SITE GEOLOGY....8
3.2.1 General Geologic Conditions....8
3.2.2 Geologic Unit Descriptions....9
3.3 SUBSURFACE CONDITIONS....9
3.3.1 Subsurface Conditions....9
3.4 GROUNDWATER CONDITIONS....10
3.4.1 4th Street NE/Marine Drive NE Groundwater Conditions....10
3.4.2 88th Street NE Groundwater Conditions....11
4. CONCLUSIONS AND RECOMMENDATIONS....12
4.1 SEISMIC DESIGN CONSIDERATIONS....12
4.1.1 Seismic Design Parameters....12
4.1.2 Near Fault Ground Motion Considerations....13
4.1.3 Liquefaction Susceptibility....13
4.1.4 Post-Liquefaction Residual Shear Strength....14
4.1.5 Liquefaction-Induced Settlement....14
4.1.6 Liquefaction-Induced Settlement at Coho Creek....16
4.1.7 Liquefaction Mitigation Measures....16
4.2 STATIC SETTLEMENT CONSIDERATIONS....17
4.2.1 General....17
4.2.2 Settlement Mechanisms....17
4.2.3 Settlement Magnitudes....19
4.2.4 Potential Settlement Mitigation Options....19
4.3 GLOBAL SLOPE STABILITY EVALUATIONS....21

4.3.1 General 21
4.3.2 Coho Creek Bridge Abutment/Slope Stability Analyses 21
4.3.2.1 Static Slope Stability Analyses 21
4.3.2.2 Pseudo-Static Slope Stability Analyses 21
4.3.2.3 Post-Liquefaction Slope Stability Analyses....22
4.3.3 4th Street NE/Marine Drive NE Retaining Structures Stability Analyses 22
4.3.4 88th Street NE Retaining Structures Stability Analyses 23
4.4 PROPOSED EXCAVATIONS....25
4.4.1 4th Street NE/Marine Drive NE Proposed Excavations....25
4.4.2 88th Street NE Proposed Excavations....25
4.4.3 Dewatering Considerations 26
4.5 COHO CREEK BRIDGE FOUNDATION DESIGN....26
4.5.1 Drilled Shaft Foundation Axial Capacity....26
4.5.2 Group Reduction Factors for Axial Shaft Capacity 28
4.5.3 Drilled Shaft Lateral Design Parameters....28
4.5.4 Abutment Earth Pressures 29
4.5.5 Drilled Shaft Construction Considerations....29
4.6 RETAINING WALL RECOMMENDATIONS....30
4.6.1 General 30
4.6.2 Block and Structural Earth Walls....33
4.6.2.1 Wall Subgrade Preparation 34
4.6.2.2 Wall Backfill Compaction and Placement....35
4.6.2.3 Wall Drainage 35
4.6.3 Soldier Pile and Lagging Walls....35
4.6.4 Soldier Pile Wall Drainage....36
4.6.5 SEW or Block Wall Drainage 36
4.6.6 Soldier Pile Shaft Construction Considerations 37
4.6.7 Sheet Pile Wall 37
4.7 INFILTRATION....38
4.7.1 Grain Size Methodology 38
4.7.2 Pilot Infiltration Tests....39
4.7.3 Estimated Infiltration Rates....39
4.7.4 Construction Considerations for Infiltration Facilities....40
4.8 LUMINAIRE FOUNDATION CONSIDERATIONS....40
4.8.1 General 40
4.8.2 Construction Considerations for Luminaire Foundations 40
4.9 PAVEMENT DESIGN 40
4.9.1 General 40
4.9.2 Design Traffic....41
4.9.3 New Pavement Design 41

4.9.4 Hot Mix Asphalt Overlays 42
4.9.5 Hot Mix Asphalt Design Considerations....42
4.9.6 Hot Mix Asphalt Binder Selection 43
4.9.7 Placement of Hot Mix Asphalt....43
4.9.8 Subgrade Preparation 44
4.9.9 Structural Fill and Compaction 44
4.9.10 Drainage 44
4.10 General Earth Work....44
4.10.1 Structural Fill....44
4.10.2 Compaction 45
4.10.3 Temporary Excavation 45
4.10.4 Wet Weather Earth Work 46
4.10.5 Dewatering 47
5. Conditions and Limitations 49
6. References 51

List of Tables (In Text)

Table 1: Thickness of Pavement Layers 5
Table 2: 4th Street NE & Marine Dr NE, Summary of Explorations Performed by Others in the Project Vicinity.... 6
Table 3: 88th Street NE, Summary of Explorations Performed by Others in the Project Vicinity . 7
Table 4: 4th Street NE/Marine Drive NE Groundwater Depths 10
Table 5: 88th Street NE Groundwater Depths 11
Table 6: 4th Street NE & Marine Drive NE, AASHTO Guide Specifications calculated by USGS Seismic Hazard Map.... 12
Table 7: 88th Street NE, AASHTO Guide Specifications calculated by USGS Seismic Hazard Map.... 13
Table 8: Liquefaction-Induced Settlements at HWA Boring Locations.... 15
Table 9: Walls 1-4 Global Slope Stability Analysis Results 22
Table 10: Walls 10-20 Global Slope Stability Analysis Results 23
Table 11: P-Multipliers for Center-to-Center Spacing of 3 and 3.5 Shaft Diameters 28
Table 12: Retaining Wall Summary 31
Table 13: Recommended Design Parameters for Block and Structural Earth Walls 34
Table 14: Design Infiltration Rates.... 39
Table 15: Structure Requirements for New HMA Pavement – 30-Year Design Life 42

List of Figures (Following Text)

Figures 1A – 2A Site and Vicinity Map
Figures 2A – 2B Site & Exploration Plan

Figure 3	Geologic Cross-Section A-A’
Figure 4	Cross-Section A-A’ Liquefaction Zones
Figures 5A – 5B	Groundwater Elevation Data
Figures 6A – 6B	Coho Creek Bridge Abutment Lateral Earth Pressures
Figure 7A	Lateral Earth Pressure – Soldier Pile Walls W1 through W4
Figure 7B	Lateral Earth Pressure – Solider Pile Wall W10
Figure 7C	Lateral Earth Pressure – Solider Pile Wall W12A
Figure 7D	Lateral Earth Pressure – Soldier Pile Wall W13
Figure 7E	Lateral Earth Pressure – Soldier Pile Wall W16
Figure 7F	Lateral Earth Pressure – Soldier Pile Wall W17
Figure 8A – 8B	Lateral Earth Pressure – Coho Creek Bridge Sheet Pile Lateral Earth Pressures
Figures 9A – 9B	Pavement Zones

APPENDICES

Appendix A: Field Explorations

Figure A-1	Legend of Terms and Symbols Used on Exploration Logs
Figures A-2 – A-24	Logs of Boreholes HWA-1 through HWA-23P
Figures A-25 – A-27	Logs of Test Pits, PIT-1 through PIT-3
Figures A-28 – A-38	Logs of Pavement Cores, Core-1 through Core-11

Appendix B: Laboratory Program

Figures B-1 – B-4	Summary of Material Properties
Figures B-5 – B-28	Particle Size Analysis of Soils
Figure B-29	Atterberg Limits
Figures B-30 – B-33	Direct Shear Tests

Appendix C: Explorations by Others

Appendix D: Slope Stability Analysis

Appendix E: Drilled Shaft Axial Capacity Charts

Appendix F: LPILE Parameters

GEOTECHNICAL ENGINEERING REPORT
I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

1. INTRODUCTION

1.1 GENERAL

This report presents the results of a geotechnical study performed by HWA GeoSciences Inc. (HWA) in support of the proposed I-5/4th Street and 88th Street NE Corridor Improvements project. The purpose of this study was to evaluate the soil and groundwater conditions at the I-5/4th Street NE and 88th Street NE corridors and to provide geotechnical recommendations for the proposed improvements.

Our work for this project to date included performing a site reconnaissance, planning, and conducting a site investigation program, performing geotechnical engineering analyses, and providing recommendations for geotechnical engineering aspects of design. Our soil exploration program consisted of drilling twenty-three (23) machine-drilled borings and installing eight (8) groundwater monitoring wells. Explorations were conducted at or near the locations of the proposed bridge piers at Coho Creek, the proposed infiltration facilities, and the proposed retaining structures to provide soil and groundwater information in support of design and future construction. Appropriate laboratory tests were conducted on selected soil samples to determine relevant engineering properties of the subsurface soils.

The approximate location of the 4th Street NE and Marine Drive NE project corridor is shown on the Site and Vicinity Map, Figure 1A and the approximate location of the 88th Street NE project corridor is shown on the Site and Vicinity Map, Figure 1B.

1.2 PROJECT DESCRIPTION

It is our understanding that the proposed improvements at the 4th Street NE project corridor include turning three (3) intersections into roundabouts. The re-grading of the site required to allow for the construction of the roundabouts will require the construction of five (5) retaining walls, ranging in height from about 3 to 14 feet.

The improvements at the 88th Street NE corridor include the removal of the existing Coho Creek culvert and gabion basket structure and replacing them with a new single-span bridge structure. Additionally, four (4) of the intersections at the 88th Street NE project corridor will be turned into roundabouts. The proposed improvements will require the construction of 10 retaining walls ranging in height from 3 to 24.5 feet, to accommodate changes in grade.

HWA understands that the pavement design is a joint effort with the Washington State Department of Transportation (WSDOT), who will be providing the pavement design for all the

sections within the WSDOT right-of-way (ROW) for both interchanges. HWA will provide pavement design recommendations for the other areas where pavement is to be replaced, including both full-depth sections and grind and overlay options.

2. FIELD AND LABORATORY TESTING

2.1 GEOTECHNICAL FIELD INVESTIGATION

2.1.1 General

Our geotechnical exploration program included a subsurface exploration program consisting of a total of twenty-three (23) machine-drilled borings across the two project corridors. Standard Penetration Test (SPT) sampling was performed in each borehole using a 2-inch-outside-diameter split-spoon sampler and a 140-pound hydraulic auto-hammer or rope and cathead. During the SPTs, samples were obtained by driving the samplers 18 inches into the soil with the hammer free falling 30 inches. The number of blows required for each 6 inches of penetration was recorded. The Standard Penetration Resistance ("N-value") of the soil is calculated as the number of blows required for the final 12 inches of penetration. However, if 50 blow counts were counted in one 6-inch interval or less, the blow counts were reported as 50 blows per number of inches driven (i.e., 50/5"). Blow counts like this are known as refusal blow counts and driving of the split spoon is terminated at that point. This resistance, or N-value, provides an indication of the relative density of granular soils and the relative consistency of cohesive soils, both indicators of soil strength.

Non-Standard Penetration Test (NSPT) sampling was performed at selected depths using a 3-inch-outside-diameter Modified California split-spoon sampler and a 140-pound hydraulic auto-hammer. The recorded number of blows for the NSPT provides higher N-values due to the hammer-sampler energy relationship when compared with the SPT (Fang, 1991). In general, a conversion factor of approximately 0.4 (Caltrans, 2021) is applied to the non-standard N-values to convert to an equivalent SPT N-value for granular soils. Due to the uncertainty associated with estimating equivalent SPT N-values for oversized samplers, these values are used primarily for comparison with the regular SPT results, and not as the primary source of blow-count data for use in liquefaction assessment.

Each exploration was completed under the full-time observation of a representative from HWA. HWA personnel recorded pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence as the explorations were advanced. Soils were classified in general accordance with the classification system described in Appendix A, Figure A-1, which also provides a key to the exploration log symbols. Summary boring logs are presented in Appendix A, Figures A-2 through A-24. The soil and groundwater conditions depicted are only for the specific date and locations reported and, therefore, are not necessarily

representative of other locations and times. The stratigraphic contacts shown on the individual boring logs represent the approximate boundaries between soil types; actual transitions may be more gradual.

2.1.2 4th Street NE/Marine Dr NE Field Investigation

A total of nine (9) machine-drilled borings were completed along the 4th Street NE and Marine Dr NE corridor, designated HWA-11 through HWA-19. The borings were drilled to depths ranging from 21.5 feet to 41.5 feet below ground surface (bgs). Groundwater monitoring wells with 2-inch-diameter PVC piezometers were installed at the locations of borings HWA-13P, HWA-15P, and HWA-18P as provided below:

- HWA-13P to a depth of 20 feet bgs, with well tag BLY 165
- HWA-15P to a depth of 25 feet bgs, with well tag BLY 167
- HWA-18P to a depth of 20 feet bgs, with well tag BNZ 289

The other borings were abandoned and backfilled with 3/8" bentonite chips per Department of Ecology requirements. The approximate borehole and groundwater monitoring well locations are shown on the Site and Exploration Plan, Figure 2A.

Drilling of boreholes and installation of the groundwater monitoring wells was performed from November 29 to December 3, 2021, and on February 8, 2023, by Geologic Drill Partners (Geologic) of Bellevue, Washington, under subcontract to HWA. Borings drilled by Geologic were drilled using the hollow-stem auger drilling method and a limited-access track-mounted Mini Bobcat drilling rig equipped with a rope and cathead. Logs for borings HWA-11 through HWA-19 are presented in Appendix A, Figures A-12 through A-20 of this report.

2.1.3 88th Street NE Field Investigation

A total of fourteen (14) machine-drilled borings were completed along the 88th Street NE corridor, designated HWA-1 through HWA-10 and HWA-20P through HWA-23P. The borings were drilled to depths ranging from 21.5 feet to 136.5 feet bgs. Groundwater monitoring wells with ¾-inch or 2-inch-diameter PVC piezometers were installed at the locations of borings HWA-4P, HWA-20P, HWA-21P, and HWA-23P; a 0.75-inch piezometer was installed at HWA-9P:

- HWA-4P to a depth of 32 feet bgs, with well tag BNP 010
- HWA-9P to a depth of 30 feet bgs, with well tag BLY 106
- HWA-20P to a depth of 25 feet bgs, with well tag BPP 611

- HWA-21P to a depth of 30 feet bgs, with well tag BNZ 288
- HWA-23P to a depth of 50 feet bgs, with well tag BNZ 287

The other borings were abandoned and backfilled with 3/8" bentonite chips per Department of Ecology requirements. The approximate borehole and groundwater monitoring well locations are shown on the Site and Exploration Plan, Figure 2B.

Drilling of boreholes and installation of the groundwater monitoring wells was performed from November 8 to 11, 2021, and on November 10, 2022, by Holocene Drilling Inc. (Holocene) of Puyallup, Washington, and from November 29 to December 2, 2021, and on February 7, 2023, by Geologic Drill Partners (Geologic) of Bellevue, Washington, under subcontract to HWA. Borings drilled by Holocene were drilled using the mud rotary drilling method and a track-mounted Diedrich D-50 drilling rig equipped with a hydraulic auto-hammer. Borings drilled by Geologic were drilled using the hollow-stem auger drilling method and a limited access track-mounted Mini Bobcat drilling rig equipped with a rope and cathead. Logs for borings HWA-1 through HWA-10 and HWA-20P through HWA-23P are presented in Appendix A, Figures A-2 through A-11 and A-21 through A-24.

2.2 PAVEMENT CORING

HWA conducted eleven (11) pavement cores, designated Core-1 through Core-11, along the project alignments to assess pavement layer thicknesses to support the design of the proposed new pavement sections and overlays. The pavement cores were 4-inch-diameter. The locations of the pavement cores are shown on the Site and Exploration Plan, Figures 2A and 2B. The coring and subsurface explorations were performed by representatives from HWA. All core holes were backfilled with compacted gravel and patched with Aquaphalt. A legend of the terms and symbols used on pavement core logs is presented in Appendix A, Figure A-1. Photographic logs of the pavement cores are presented on Figures A-28 through A-38. Table 1 summarizes the pavement structures encountered in the pavement core explorations.

Table 1: Thickness of Pavement Layers

Designation	Location	HMA Thickness (inches)	General Notes
4th Street NE			
Core-1	33rd Ave NE, NB, 2' from curb - See Figure 2A	7	2 lifts of HMA, no cracking at core location. Lifts are unbonded.
Core-2	Marine Dr NE, EB, 3' from curb - See Figure 2A	9	4 lifts of HMA, no cracking at core location. Lifts are bonded.
Core-3	4th St, EB, 1.75' from curb - See Figure 2A	11	5 lifts of HMA, no cracking at core location. Lifts are bonded.
Core-4	Marine Dr NE, WB, 3' from curb - See Figure 2A	12	5 lifts of HMA, no cracking at core location. Lifts are bonded.
Core -11	33rd Ave NE, NB, 2.5' from fog line – See Figure 2A	6.5	3 lifts of HMA, no cracking at core location. Bottom lift was unbonded and cracked.
88th Street NE			
Core-5	88th St NE, EB, 2.5 from fog line - See Figure 2B	10	5 lifts of HMA, no cracking at core location. Lifts are unbonded.
Core-6	88th St NE, WB, 7' from curb - See Figure 2B	8	3 lifts of HMA, cored on a crack. Lifts are unbonded.
Core-7	88th St NE, EB, 2' from fog line - See Figure 2B	12	4 lifts of HMA, cored on a crack. Top lift is cracking and is unbonded from below lifts.
Core-8	88th St NE, WB, 3' from curb - See Figure 2B	10.5	4 lifts of HMA, no cracking at core location. Third lift was unbonded from fourth.
Core-9	34th Ave NE, SB, 4' from curb - See Figure 2B	5.25	3 lifts of HMA, no cracking at core location. Lifts are bonded.
Core-10	36th Ave NE, NB, 2' from fog line – See Figure 2	7.25	3 lifts of HMA, some cracking adjacent to core location. Void in the east side of the core at 4" below road grade. Lifts are bonded.

As indicated in the pavement core logs and in Table 1, some of the pavement cores were collected in areas where cracking was observed at the pavement surface. Cores from 4th Street NE consisted of Hot Mix Asphalt (HMA) with a thickness varying from 6.5 to 12 inches and consisted of 2 to 5 lifts of HMA. Cores from 88th Street NE consisted of HMA with a thickness varying from 5.25 to 12 inches and consisted of 3 to 5 lifts of HMA.

2.3 GEOTECHNICAL LABORATORY TESTING

Geotechnical laboratory tests were conducted on selected samples retrieved from the explorations to characterize relevant engineering properties and index parameters of the soils encountered at the site. The tests included visual classification, natural moisture content determination, grain-size distribution analysis, Atterberg limits, and direct shear. The tests were conducted in general accordance with appropriate American Society of Testing and Materials (ASTM) standards. Tests are discussed in further detail in Appendix B. The test results are also presented in Appendix B, and/or displayed on the exploration logs in Appendix A, as appropriate.

2.4 EXPLORATIONS BY OTHERS

HWA conducted a comprehensive search for geotechnical information in the vicinity of the project corridor. This effort included a search of online geotechnical databases, a review of HWA's project library, and a review of records provided by WSDOT and Parametrix.

This search yielded useful information from twelve (12) explorations at the 4th Street NE & Marine Dr NE location and seven (7) explorations at the 88th Street NE location previously conducted by others. The approximate locations of the borings are presented on the Site and Exploration Plans, Figures 2A-2B. The logs of the explorations are presented in Appendix C.

Summary information obtained from explorations previously conducted by others are presented in Tables 2 and 3.

Table 2: 4th Street NE & Marine Dr NE, Summary of Explorations Performed by Others in the Project Vicinity

Document Author and Date	Exploration Designation	Total Depth (feet)	Depth to Groundwater (feet)[(a)]
WSDOT, 1966	H-1	103.5	8
WSDOT, 1966	H-2	132	9
WSDOT, 1966	H-3	44	11
WSDOT, 1966	H-4	38.5	No Information

Document Author and Date	Exploration Designation	Total Depth (feet)	Depth to Groundwater (feet)[(a)]
WSDOT, 1991	H-1	2	No free water
WSDOT, 1991	H-2	2	No free water
WSDOT, 1991	H-3	2	No free water
WSDOT, 1991	H-4	2	No free water
WSDOT, 1951	H-20	15.5	No Information
WSDOT, 1951	H-21	15	No Information
WSDOT, 1951	H-22	10	No Information
WSDOT, 1951	H-23	7.5	No Information

(a) Depth of water below ground surface at time of drilling.

Table 3: 88th Street NE, Summary of Explorations Performed by Others in the Project Vicinity

Document Author and Date	Exploration Designation	Total Depth (feet)	Depth to Groundwater (feet)[(a)]
Shannon & Wilson, 1994	HB-1	10.5	Not observed
Shannon & Wilson, 1994	HB-2	9	Not observed
Shannon & Wilson, 1994	HB-3	10.1	Not observed
Shannon & Wilson, 1994 / GeoEngineers	B-1	74	8
Shannon & Wilson, 19941994 / GeoEngineers	B-5	9	7
Shannon & Wilson, 1994 / WSDOT	CP-2-09	17	No free water

(a) Depth of water below ground surface at time of drilling.

3. SITE CONDITIONS

3.1 SURFACE CONDITIONS

3.1.1 4th Street NE/Marine Drive NE Surface Conditions

Marine Drive NE and 4th Street NE trend west to east under I-5 at exit 199, changing street names at the intersection with the interstate and extending through a neighborhood of commercial properties to the east and Tribal land to the west. The project site is situated between 33rd Avenue NE and Beach Avenue. The elevation slopes up from west to east from an elevation

of approximately 21 feet to 32 feet above mean sea level (AMSL) over approximately 1,000 feet. At this location, Marine Drive NE and 4th Street have on- and off-ramps connecting to I-5.

3.1.2 88th Street NE Surface Conditions

88th Street NE trends west to east over I-5 at exit 200 and extends through a neighborhood of commercial properties to the east and Tribal land to the west. The project corridor is between 34th Avenue NE and past 36th Avenue NE. At the west end of the project corridor, Coho Creek runs roughly parallel to 34th Avenue NE and under 88th Street NE and flows south as a tributary to Quilceda Creek. The elevation slopes up from west to east from an elevation of approximately 34 feet to 53 feet (AMSL) over approximately 1,500 feet. At this location, 88th Street NE has on- and off-ramps connecting it with I-5.

3.2 SITE GEOLOGY

3.2.1 General Geologic Conditions

The project alignments are both located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland. As the most recent glacier retreated, it uncovered a sculpted landscape of elongated, north-south trending hills and valleys between the Cascade and Olympic Mountain ranges, composed of a complex sequence of glacial and interglacial deposits.

Specific geologic information along each project alignment was obtained from the 1:24,000-scale *Geologic Map of the Marysville Quadrangle, Snohomish County, Washington* (Minard, 1985) and the Washington State Department of Natural Resources (WDNR) Geologic Information Portal (WDNR, 2025). It is important to note that the geologic unit boundaries are inferred from limited surface observations and topography and may not match the soil conditions encountered in the geotechnical explorations in the area. The geologic mapping surface boundaries should only be used for preliminary planning purposes. As evident by our subsurface explorations, the geologic unit boundaries may be inconsistent with the existing surface and subsurface conditions at some locations. Further discussions of geologic and subsurface conditions are provided in Section 3.3 of this report.

3.2.2 Geologic Unit Descriptions

The major geologic unit expected to be encountered along the two project corridors, summarized from the Geologic Information Portal, is described below:

- **Recessional Outwash, Marysville Sand Member (Qvrm):** Consists of stratified to massive sand with some interbedded silts and clays. This unit was deposited during glacial retreat and was not subjected to being glacially overridden. As such, this unit is expected to be loose to medium dense. In general, this unit is more fine grained towards the southern extent, and silts and clays are common in the Marysville area.

3.3 SUBSURFACE CONDITIONS

3.3.1 Subsurface Conditions

The soils encountered in our explorations included topsoil, fill, till fill, peat, and Marysville Sand. There was little noticeable difference between the general subsurface conditions between the two project corridors, with most of our borings encountering varying amounts of fill or topsoil directly over Marysville Sand; however, peat materials were also noted above the Marysville Sand in two of the explorations. The soil units encountered in HWA's geotechnical explorations are described in the anticipated order of deposition from youngest to oldest, below. The exploration logs in Appendix A and C provide more detail of subsurface conditions observed at specific locations and depths.

Topsoil: Encountered from ground surface to depths ranging from 0.5 to 3 feet bgs at the locations of HWA-8 through HWA-10, HWA-12 through HWA-19, and HWA-21P through HWA-23P. The topsoil consisted of silty sand, with varying amounts of gravel and organics.

Fill: Encountered from the ground surface (just below the pavement), or beneath the topsoil, to depths ranging from 0.5 to 25 feet bgs at the locations of borings HWA-1 through HWA-7, HWA-9P, HWA-11, HWA-18P, and HWA-20P through HWA-23P. The fill generally consisted of very loose to medium dense, slightly silty to silty sand, with varying amounts of gravel or slightly silty to silty gravel with varying amounts of sand. We expect that the fill was placed during construction of I-5, 88th Street NE, and Marine Drive NE. Excavations in this deposit may encounter logs or other obstructions and caving should be expected when drilling or excavating into this material.

Till Fill: Encountered below the fill at HWA-7. The till fill was 15 feet thick and consisted of medium dense, silty to very silty sand with varying amounts of gravel. We expect that this unit consisted of reworked glacial till and was placed during the construction of I-5.

Peat: Encountered directly below the gabion basket structure and fill at the locations of HWA-5 and HWA-20P. The peat deposit was about 15 feet thick in HWA-5 and about 11 feet thick in HWA-20P. The deposit generally consisted of wood and organic silty sand. These deposits are likely part of the active channel of Coho Creek, a south-flowing tributary of Quilceda Creek. Excavations in this deposit may encounter logs or other obstructions and caving should be expected when drilling or excavating into this material.

Marysville Sand: Encountered below the overlying deposits at all locations and extended to the total depths of the borings. The Marysville Sand deposits generally consisted of very loose to dense, slightly silty to silty sand or soft to hard silt with varying amounts of sand. Marysville Sand deposits located near fluvial channels contain organics. Caving should be expected when drilling or excavating into this material, particularly where encountered below groundwater.

The geologic conditions along the proposed Coho Creek bridge location are shown on Figure 3, Geologic Cross-Section A-A.

3.4 GROUNDWATER CONDITIONS

3.4.1 4th Street NE/Marine Drive NE Groundwater Conditions

Groundwater table was encountered during drilling in borings HWA-11 through HWA-19 at depths ranging from 6.4 to 14 feet bgs. Table 4 below lists the groundwater depths we encountered during our subsurface exploration and measured in our groundwater monitoring wells.

Table 4: 4th Street NE/Marine Drive NE Groundwater Depths

Boring Designation	Ground Surface Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation
HWA-11	23.0	10.0	13.0
HWA-12	25.2	14.0	11.2
HWA-13P	22.0	10.5	11.5
HWA-14	23.0	12.0	11.0
HWA-15P	20.6	8.4	12.2
HWA-16	22.6	10.0	12.6
HWA-17	21.8	10.0	11.8
HWA-18P	23.4	6.5	6.5
HWA-19	22.0	7.5	14.5

Plots of the groundwater data obtained from these groundwater monitoring wells located within the 4th Street NE/Marine Drive NE project alignment can be seen on Figure 5A, 4th Street NE/Marine Drive NE Groundwater Elevation Data.

3.4.2 88th Street NE Groundwater Conditions

Groundwater table was encountered during drilling in borings HWA-1 through HWA-9P and HWA-20P through HWA-23P at depths ranging from 7 to 50 feet below ground surface. No groundwater seepage was encountered in HWA-10 during the exploration. Table 5 below lists the groundwater depths we encountered during our subsurface exploration and measured in our groundwater monitoring wells.

Table 5: 88th Street NE Groundwater Depths

Boring Designation	Ground Surface Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation
HWA-1	39.1	7.0	32.1
HWA-2	38.3	12.0	26.3
HWA-3	40.5	15.0	25.5
HWA-4P	39.0	9.8	29.2
HWA-5	38.2	25.0	13.2
HWA-6	46.3	25.0	21.3
HWA-7	65.0	39.0	26.0
HWA-8	49.8	25.0	24.8
HWA-9P	49.8	25.0	24.8
HWA-10	48.7	Not Encountered during drilling	Not Encountered during drilling
HWA-20P	38.8	14.7	24.1
HWA-21P	46.4	21.0	25.4
HWA-22	52.5	50.0	2.5
HWA-23P	65.5	45.6	19.9

Plots of the groundwater data obtained from the groundwater monitoring wells installed in borings HWA-4P, HWA-20P, HWA-21P, and HWA-23P are shown on Figure 5B, 88th Street NE Piezometer Report.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 SEISMIC DESIGN CONSIDERATIONS

4.1.1 Seismic Design Parameters

Earthquake loading for the two project areas was developed in accordance with Section 3.4 of the *AASHTO Guide Specifications for LRFD Seismic Bridge Design*, 2nd Edition, 2011 and the WSDOT amendments to the AASHTO *Guide Specifications* provided in the *Bridge Design Manual* (BDM; WSDOT, 2023). For seismic analysis, the Site Class is required to be established and is determined based on the average soil properties in the upper 100 feet below the ground surface. Based on our explorations and understanding of site geology, it is our opinion that the proposed improvements at both project locations are underlain by soils that would be consistent with Site Class E.

The design parameters for the design level event (equal to a return period of 975 years) were obtained from the USGS Uniform Hazard Tool website using the U.S. 2014 Dynamic Conterminous edition (v4.2.0), which provides the probabilistic seismic hazard parameters from the *2014 Updates to the National Hazard Maps* (Peterson et al., 2014). Site coefficients were developed following the WSDOT BDM, which adopts the site coefficients provided in ASCE 7-16. The recommended seismic coefficients for the design event at the 4th Street NE and Marine Drive NE project area are provided in Table 6. The recommended seismic coefficients for the design event at the 88th Street NE project area are provided in Table 7. The spectral acceleration coefficient at 1-second period (S_{D1}) is greater than 0.5 at both project locations; therefore, Seismic Design Category D, as given by AASHTO Table 3.5-1 (AASHTO, 2011), should be used for both.

Table 6: 4th Street NE & Marine Drive NE, AASHTO Guide Specifications calculated by USGS Seismic Hazard Map

Site Class	Peak Horizontal Bedrock Acceleration PBA, (g)	Spectral Bedrock Acceleration at 0.2 sec S_S, (g)	Spectral Bedrock Acceleration at 1.0 sec S_1, (g)	Site Coefficients			Peak Horizontal Acceleration PGA (A_S), (g)
				F_{pga}	F_a	F_v	
E	0.3565	0.821	0.224	1.487	1.272	3.179	0.530

Based on the above parameters, the Peak Ground Acceleration, PGA (A_S) for Site Class E at the 4th Street NE and Marine Drive NE project area is 0.530 g. The mean Moment Magnitude is 6.99.

Table 7: 88th Street NE, AASHTO Guide Specifications calculated by USGS Seismic Hazard Map

Site Class	Peak Horizontal Bedrock Acceleration PBA, (g)	Spectral Bedrock Acceleration at 0.2 sec S_s, (g)	Spectral Bedrock Acceleration at 1.0 sec S_1, (g)	Site Coefficients			Peak Horizontal Acceleration PGA (A_s), (g)
				F_{pga}	F_a	F_v	
E	0.3521	0.810	0.221	1.496	1.276	3.194	0.527

Based on the above parameters, the PGA (A_s) for Site Class E at the 88th Street NE site is 0.527 g. The mean Moment Magnitude is 6.97.

4.1.2 Near Fault Ground Motion Considerations

As required by the AASHTO *Guide Specifications*, near fault effects must be considered for structures and improvements that are within 6 miles of a known fault. Both the 88th Street NE and 4th Street NE/Marine Drive NE project areas are located more than 6 miles from the nearest fault (the Southern Whidbey fault); near fault effects do not need to be considered for the site.

4.1.3 Liquefaction Susceptibility

Liquefaction is a temporary loss of soil shear strength due to earthquake shaking. Loose, saturated cohesionless soils are the most susceptible to earthquake-induced liquefaction; however, experience and research have shown that certain silts and low-plasticity clays are also susceptible. Primary factors controlling the development of liquefaction include the intensity and duration of strong ground motions, the characteristics of subsurface soils, *in-situ* stress conditions, and the depth to groundwater. Based on the WSDOT *Geotechnical Design Manual* (GDM; WSDOT, 2022), the liquefaction susceptibility of the soils along both project corridors was determined utilizing the simplified procedure originally developed by Seed and Idriss (1971) and updated by Youd et al. (2001) and Idriss and Boulanger (2004, 2006). The maximum considered depth for liquefaction was limited to 80 feet bgs per the GDM.

The simplified procedure is a semi-empirical approach that compares the cyclic resistance ratio (CRR) required to initiate liquefaction of the material to the cyclic stress ratio (CSR) induced by the design earthquake. The factor of safety relative to liquefaction is the ratio of the CRR to the CSR; where this ratio is computed to be less than 1, the analysis would indicate that liquefaction is likely to occur during the design earthquake. The CRR is primarily dependent on soil density, with the current practice being to base it on the SPT N-value, corrected for energy considerations, fines content, and earthquake magnitude. CSR is generally determined by the formulation developed by Seed and Idriss (1971) and relates equivalent shear stress caused in the

soil at any depth to the effective stress at that depth and the peak ground acceleration at the surface.

Our analyses indicate that portions of both the very loose to medium-dense coarse-grained Marysville Sand and very soft to stiff fine-grained Marysville Sand encountered in all explorations across both project corridors would liquefy during the design earthquake, assuming the layers are fully saturated. The estimated liquefiable zones in the subsurface profile at the location of the proposed Coho Creek bridge can be seen in Figure 4.

4.1.4 Post-Liquefaction Residual Shear Strength

Residual shear strengths for the liquefiable soils were developed using a weighted average of the results of the Idriss (2007), Olson and Stark (2002), Idriss and Boulanger (2007) and Kramer (2008) relationships. The residual shear strengths assigned are a function of the equivalent clean sand SPT value, $(N_1)_{60cs}$, the potential for void redistribution, and the initial effective overburden stress. At locations where $(N_1)_{60cs}$ is less than 10, we assumed void redistribution effects could be significant, which gives an appropriate conservative estimate of residual shear strength. The residual shear strength values were used in our post-liquefaction analyses for slope stability and bridge foundations.

4.1.5 Liquefaction-Induced Settlement

Unsaturated loose sand deposits tend to densify when they are subject to earthquake shaking. For saturated sand deposits, excess pore water pressure builds up during the earthquake excitation, leading to loss of strength or liquefaction. After the shaking stops, excess pore water pressures dissipate toward a zone where water pressure is relatively lower, usually the ground surface. The dissipation is accompanied by a reconsolidation of the loose sand (Ishihara and Yoshimine, 1992). The reconsolidation is manifested at the ground surface as vertical settlement, usually termed as liquefaction-induced settlement or seismic settlement.

The potential for liquefaction-induced settlement was evaluated at the locations of borings HWA-1 through HWA-13P and HWA-20P and at the locations of the proposed Coho Creek bridge abutments. The methodologies used were developed by Idriss and Boulanger (2014) and are generally based on the relationship between shear wave velocity, cyclic stress ratio, corrected SPT blow counts, and volumetric strain. Table 8 below lists the estimated liquefaction-induced settlements at each of our boring locations. It should be noted that the maximum depth for liquefaction is 80 feet bgs, but most of the borings terminated at depths less than 80 feet bgs (all but HWA-2 through HWA-5 and HWA-20P).

Table 8: Liquefaction-Induced Settlements at HWA Boring Locations

Boring Designation	Boring Depth (feet)	Estimated Liquefaction-Induced Settlement (inches)
HWA-1	21.5	10*
HWA-2	116.5	12
HWA-3	101.5	15
HWA-4P	81.5	14
HWA-5	136.5	4
HWA-6	39.0	3*
HWA-7	41.5	1*
HWA-8	41.5	5*
HWA-9P	31.5	1*
HWA-10	21.5	0*
HWA-11	21.5	3*
HWA-12	21.5	1*
HWA-13P	26.5	3*
HWA-14	41.5	9*
HWA-15P	41.5	10*
HWA-16	21.5	3*
HWA-17	21.5	3*
HWA-18P	21.5	2*
HWA-19	41.5	7*
HWA-20P	86.5	8
HWA-21P	30.0	7*
HWA-22	51.5	0*
HWA-23P	50.0	2*

* Within the limitation of the project budget, these borings have termination depths less than 80 feet. Therefore, there is not enough information to accurately estimate total expected liquefaction-induced settlement because it is possible that liquefaction-induced settlement could occur between the termination depth of those borings and 80 feet bgs. As a result, the values presented in Table 8 for borings HWA-1, HWA-6 through HWA-19, and HWA-21P through HWA-23P should be considered an underestimate.

4.1.6 Liquefaction-Induced Settlement at Coho Creek

The potential for liquefaction-induced settlement was evaluated at both bridge abutments for the proposed Coho Creek bridge. The methodologies used were developed by Idriss and Boulanger (2014) and are generally based on the relationship between shear wave velocity, cyclic stress ratio, corrected SPT blow counts, and volumetric strain. Using these methods, liquefaction-induced settlement was estimated to be approximately:

- 12 inches at the western abutment
- 8 inches at the eastern abutment

We expect that the liquefaction-induced settlement will be differential along short distances at the Coho Creek bridge. The proposed abutments should be designed to handle the associated down drag loads produced because of these liquefaction-induced settlements, as discussed in Section 4.5.1.

4.1.7 Liquefaction Mitigation Measures

Mitigation of liquefiable soil conditions generally involves costly construction methods, particularly if required over a large area. Some options include complete removal and replacement of the liquefiable soils, and preloading or surcharging. Due to the nature and spatial extent of the proposed project, we anticipate that implementation of these methods would be cost prohibitive. Additionally, we do not expect that the onset or effects of liquefaction to present a risk of severe injury or loss of life to the public. Based on these considerations, we recommend that the proposed improvements be designed to accommodate the anticipated liquefaction-induced deformations to the maximum extent practical. Costs associated with maintenance and repair of retaining walls, luminaires, and pavement sections should be considered over the projected design life of the improvements.

We recommend that all underground utilities and structures be designed to tolerate the anticipated liquefaction-induced settlement. This should include the use of flexible piping materials for underground utilities and flexible connections where utilities pass through restrained structures. Even with the use of flexible piping materials, reconstruction of some grade-sensitive utilities may be necessary after the design earthquake to reestablish required grades.

Retaining walls and other structures should be designed to limit the potential for catastrophic failure due to the reduced strength of the liquefied soils but be able to accommodate some deformation that could occur due to liquefaction-induced settlement or lateral displacements. This includes designing soldier pile walls for lateral earth pressures associated with the post-liquefaction event to keep the wall from tipping over; however, some settlement or lateral

displacement of the wall and adjacent roadway may occur that could require regrading of the roadway following a seismic event that causes liquefaction at the site.

4.2 STATIC SETTLEMENT CONSIDERATIONS

4.2.1 General

Borings HWA-5 and HWA-20P encountered a thick peat deposit below the existing gabion basket structure. HWA-5 and HWA-20P are located 45 feet west and within 5 feet of the proposed eastern abutment, respectively.

It is our understanding that near the eastern abutment, grades will be increased as much as 15 feet to accommodate proposed road widening. These increases in grade will result in the application of increased load onto the underlying fill and expected compressible peat deposit. We expect that these increases in loads will induce modest elastic settlements within the fill soils and will induce additional consolidation settlements of the expected underlying compressible peat deposit.

We expect that significant structural excavations will be required to facilitate construction of the abutment pile caps, walls, and associated wing walls. The existing fill and Marysville Sand soils near the eastern abutment possess unit weights between 120 to 125 pounds per cubic foot (pcf). If these excavations are backfilled with standard structural fill possessing a typical unit weight of 135 to 140 pcf, the increase in load associated with backfilling these excavations will induce additional elastic and consolidation settlements of the underlying soils. These increased loads and associated settlements will be considered in the design of proposed improvements.

4.2.2 Settlement Mechanisms

All soils, whether cohesionless or cohesive, will experience settlements immediately after application of loads. Whether or not the settlements will continue with time after the application of the loads is a function of the density of the soil and how quickly water can drain from the voids. In general, soil settlements can be divided into three categories: elastic (or immediate) settlement, consolidation settlement, and biodegradation of organic soils. Elastic settlement takes place during construction.

> **Elastic settlement** is a vertical component of soil compression under static loading. These settlements occur relatively rapidly upon the application of load and are dependent on the elastic properties of the soil underlying the roadway. Loose to medium dense soils generally undergo larger elastic settlements than denser glacially consolidated soils. For this project, we expect elastic settlements to be relatively small and inconsequential with respect to consolidation settlement of the underlying peat.

Consolidation settlement results from the application of static loading on fine-grained soil deposits that are saturated and have not previously experienced similar loading conditions. Consolidation settlement occurs as both primary consolidation (short-term consolidation) and secondary compression (long-term consolidation). Both mechanisms are described below.

Primary consolidation occurs immediately upon the application of load and is a result of pore water being expelled from the void space within the soil unit. As load is applied, the pore water pressure increases within the soil unit and slowly decreases as the pore water is expelled from the soil. As this process continues, the void space between the soil particles is reduced and the volume of the soil deposit decreases. This decrease in volume results in a reduction in the thickness of the soil unit, which manifests as settlement at the ground surface. The magnitude of primary consolidation is dependent on the geometry of the compressible soil unit, the applied load magnitude, and the compressibility properties of the soil.

Secondary compression is associated with structural deformation within the soil as the result of applied load. In mineral soils, the secondary compression is relatively small in comparison to the primary consolidation. However, secondary compression in organic soils is much larger due to the potential for cellular deformation within the organic material. Secondary compression continues for many years after application of load. Typically, secondary compression is calculated over a design life of 50 years. The magnitude of the secondary compression settlement is difficult to predict but is typically a small fraction (5 to 10 percent) of the settlement that occurs as primary consolidation for most mineral soils. For highly organic soils, secondary compression has been observed to be a significant amount of the total settlement. Based upon our experience, secondary settlement of the peat deposit is expected to represent about 20% of its estimated primary settlement.

Biodegradation is a chemical process that occurs in organic soils and can result in settlement of the ground surface. We expect that the peat will continue to undergo biodegradation over the design life of the proposed improvements. Biodegradation occurs as organic materials within the peat decompose. The rate and magnitude of biodegradation is independent of applied load and depends on several factors including groundwater level and the nature and amount of organic material present. For the peat, the magnitude of biodegradation is expected to vary widely and be dependent on the composition of the peat as it was deposited. As both secondary compression and biodegradation occur slowly over time, it is generally difficult or impossible to distinguish the individual components of each mechanism. For this project, the anticipated magnitude of biodegradation and secondary compression will be assumed to equal 25 percent of the estimated primary settlement.

4.2.3 Settlement Magnitudes

Based on the soil conditions encountered in boring HWA-20P, our estimate of primary consolidation settlement at the Coho Creek bridge eastern abutment is approximately 18 inches, where grade is to be raised up to 15-feet. This magnitude could vary across the bridge abutment and adjacent retaining structures and could result in differential settlements in every direction. The estimated settlements could induce damage to the eastern bridge pier, roadway, utilities, and adjacent retaining structures. Our assumption is based on our experience with similar soil conditions and that the proposed improvements are completed using standard construction practices.

To avoid these potentially damaging settlements due to increases in grade, we recommend that settlement mitigation measures be implemented as part of the project. A discussion of appropriate settlement mitigation options is provided below.

4.2.4 Potential Settlement Mitigation Options

Several settlement mitigation measures could be implemented to reduce or eliminate potential settlements associated with the expected peat deposit below the proposed Coho Creek bridge. Due to site constraints for this project, the mitigation options evaluated consisted of over excavation and replacement, preloading, and the use of lightweight backfill. A description of each of these proposed options is provided below.

Over Excavation and Replacement: The expected compressible deposits below the east abutment pile cap could be over excavated and replaced with compacted structural fill to eliminate the potential of future settlements. However, subsurface investigations indicate that the base of the compressible soils vary from about 30 to 35 feet bgs. Therefore, over excavation and replacement would require very deep exactions that would require significant shoring. Additionally, the groundwater level along the project site is such that over excavation and replacement would most likely require extensive dewatering. Due to the anticipated cost of over excavation and replacement, we do not believe that it is a viable settlement mitigation option.

Preloading: Preloading the area that is going to experience the major increases in grade would be a viable way to reduce future settlements of the underlying peat deposit. Preloading involves placing a specified amount of soil or weight over a given area and allowing the weight to consolidate the underlying compressible soils prior to construction of the proposed improvements. Preloading has been used successfully on similar projects; however, the application of preloading requires time and space. We would expect the underlying peat deposit would take at least 6 months to complete primary settlement. Therefore, a preload would need at least 6 months to successfully reduce future settlements. We expect that the placement of a preload would cause damage to adjacent structures and roadways. Based on time requirements

and the anticipated disruption and or damage to the adjacent structures, we do not believe that preloading the peat deposit is the best option for this project.

Lightweight Backfill: Lightweight material could be used to offset the load of proposed fill to reduce the application of load on the underlying peat deposit. Several lightweight fill materials are available and have been used on past projects with success. These materials include Geofoam, bottom ash, volcanic rock, glass cutlet, and lightweight cellular concrete.

Of all these available lightweight materials, Geofoam and lightweight cellular concrete are the most viable options for this project.

Geofoam consists of proprietary lightweight Styrofoam blocks that are readily available to contractors and have been used successfully on numerous road projects. The Geofoam blocks can be ordered in a variety of measurements but generally range from 1 to 4 feet wide by 4 to 16 feet long by 2 feet thick and can be shaped with cutting tools to match almost any geometry. Geofoam weighs approximately 1 to 3 pcf.

Lightweight cellular concrete (LWC) is a proprietary product that can be manufactured onsite to a wide range of unit weights (27 to 120 pcf) and compressive strength values as needed to meet project requirements. Cellular concrete is widely available in Washington State and has been used successfully on various road projects. Cellular concrete is typically produced using an on-site batch plant and pumped to the placement area, where it can be poured in maximum lift thicknesses of 3 feet.

Based on the wide availability of LWC, we recommend its use on this project to reduce the potential for consolidation settlement at wall W12A and to reduce lateral earth pressure loads on wall W13.

For walls W12A and W13, we recommend the use of Class II cellular concrete with a cast density ranging from 27 to 30 pcf and a minimum compressive strength of 40 to 50 pounds per square inch (psi). Prior to placement of cellular concrete, we recommend that the placement area be properly prepared and cleared of all deleterious materials. Existing embankment and/or fill slopes should be benched/stepped such that the maximum bench height is no greater than 3 feet, which will require some degree of over-excavation of the existing embankment slopes. We recommend that the soldier pile walls be lagged to the full wall height and that the cellular concrete pour area be properly formed to avoid leakage of cellular concrete. We suggest that the top of the cellular concrete be left below the top of the wall to allow for the placement of at least 4 inches of crushed rock over the cellular concrete for protection and to prevent degradation.

Provided lightweight fill is produced and placed in accordance with the recommendations herein, our settlement modeling indicates that total long-term, post-construction static settlement of soldier pile wall W12A will be less than 3 inches.

4.3 GLOBAL SLOPE STABILITY EVALUATIONS

4.3.1 General

The stability of the proposed Coho Creek bridge abutments, permanent slopes, and proposed retaining walls were evaluated using limit equilibrium methods utilizing the computer program SLIDE2 (Rocscience, 2022). Limit equilibrium methods consider force (or moment) equilibrium along potential failure surfaces. Results are provided in terms of a factor of safety, which is computed as the ratio of the summation of the resisting forces to the summation of the driving forces. Where the factor of safety is less than 1.0, instability is predicted. With limit equilibrium, the shear strength available is assumed to mobilize at the same rate at all points along the failure surface. As a result, the factor of safety is constant over the entire failure surface.

We evaluated global stability for static, seismic, and post-seismic (post-liquefaction) limit states. The slope stability factors of safety were evaluated with the General Limit Equilibrium (GLE)/Morgenstern-Price and Spencer methods, which satisfy both force and moment equilibrium. Both circular and non-linear failure planes were evaluated. In accordance with the WSDOT GDM, the required FS for global stability analyses is 1.5, 1.1, and 1.1 for static, seismic, and post-seismic cases, respectively. The seismic condition evaluates the global stability FS with an applied horizontal acceleration coefficient equal to one-half of the site-adjusted peak ground surface acceleration (A_s), defined for the 975-year average return period seismic event. Post-seismic analysis pertains to stability under liquefied conditions using residual soil shear strength properties and no horizontal seismic acceleration coefficient.

4.3.2 Coho Creek Bridge Abutment/Slope Stability Analyses

4.3.2.1 Static Slope Stability Analyses

The factor of safety of the western and eastern bridge abutments and permanent slopes, under static loading conditions, were calculated to be approximately 2.1, as shown on Figures D-1 and D-2, Appendix D. This analysis indicates that global slope instability is not likely to occur under static loading conditions, as the static factors of safety for each abutment/slope are greater than the minimum required static factor of safety of 1.5.

4.3.2.2 Pseudo-Static Slope Stability Analyses

Pseudo-static slope stability analyses model the anticipated earthquake loading as a constant horizontal force applied to the soil mass. For our analysis, we used a horizontal seismic coefficient of 0.265 g, which is one-half of the peak ground acceleration (PGA). The factor of safety of the western and eastern bridge abutments and permanent slopes, under pseudo-static loading conditions, were calculated to be approximately 1.3, as shown on Figures D-3 and D-4, Appendix D. The results of these analyses suggest that the factor of safety under design seismic

event pseudo-static loading for global slope stability for each abutment/slope are greater than the minimum required pseudo-static factor of safety of 1.1.

4.3.2.3 Post-Liquefaction Slope Stability Analyses

The stability of the western and eastern bridge abutments and permanent slopes was evaluated using the post-liquefaction residual shear strength of the liquefied soil layers (assuming liquefaction occurs) to evaluate the static stability of the slope following the onset of liquefaction in the Marysville Sand deposits. Our liquefaction analysis predicts that the very loose to medium dense Marysville Sand could liquefy during the design earthquake, assuming the layers are fully saturated. The results of our post-liquefaction slope stability analysis for the western and eastern abutments/slopes indicated a post-liquefaction factor of safety of approximately 1.2 and 2.2, respectively, as shown on Figures D-5 and D-6, Appendix D. The factor of safety for each abutment/slope are greater than the minimum required post seismic (post liquefaction) factor of safety of 1.1.

4.3.3 4th Street NE/Marine Drive NE Retaining Structures Stability Analyses

Retaining walls W1 through W4 will consist of cantilever soldier pile walls due to the proximity of the I-5 overpass abutments. For global stability evaluation, the soldier pile walls were assumed to have a depth equal to the exposed height. Slope stability under static, pseudo-static, and post-liquefaction loading conditions were conducted for walls W1 through W4 and are included in pages D-7 through D-18 of Appendix D. The resulting factors of safety for walls W1 through W4 are presented in Table 9. The factors of safety for each limit state are greater than the minimum required.

Table 9: Walls 1-4 Global Slope Stability Analysis Results

Wall Designation	Location	Limit State	Spencer (1967)	GLE/Morgenstern-Price (1965)
W1	4th Street NE	Static	2.37	2.38
		Seismic	1.85	1.85
		Post Liquefaction	1.48	1.52
W2	4th Street NE	Static	2.44	2.45
		Seismic	1.55	1.55
		Post Liquefaction	1.74	1.77
W3	4th Street NE	Static	2.37	2.38
		Seismic	1.55	1.55
		Post Liquefaction	1.53	1.54

Wall Designation	Location	Limit State	Spencer (1967)	GLE/Morgenstern -Price (1965)
W4	4th Street NE	Static	2.71	2.72
		Seismic	1.69	1.69
		Post Liquefaction	2.08	2.1
W5	4th Street NE	Wall height is less than 4 feet.		

4.3.4 88th Street NE Retaining Structures Stability Analyses

Walls along 88th Street NE will consist of a combination of soldier pile, structural earth wall (SEW), and block walls. Slope stability under static, pseudo-static, and post-liquefaction loading conditions were conducted for these walls and the resulting factors of safety are presented in Table 10. The factors of safety for each limit state are greater than the minimum required.

Table 10: Walls 10-20 Global Slope Stability Analysis Results

Wall Designation	Location	Limit State	Spencer (1967)	GLE/Morgenstern -Price (1965)
W10	88th Street NE	Static	3.41	3.41
		Seismic	1.36	1.35
		Post Liquefaction	1.14	1.14
W11	88th Street NE	Static	2.65	2.62
		Seismic	1.79	1.77
		Post Liquefaction	1.55	1.54
W12A	88th Street NE	Static	2.70	2.70
		Seismic	1.19	1.18
		Post Liquefaction	1.13	1.13
W12B	88th Street NE	Static	2.00	1.94
		Seismic	1.14	1.14
		Post Liquefaction	1.10	1.10
W12B	88th Street NE	Compound - Static	1.79	1.62
		Compound - Seismic	1.14	1.14
		Compound - Post Liquefaction	1.10	1.11

Wall Designation	Location	Limit State	Spencer (1967)	GLE/Morgenstern -Price (1965)
W13	88th Street NE	Static	3.92	3.93
		Seismic	2.11	2.10
		Post Liquefaction	1.13	1.14
W14	88th Street NE	Static	2.27	1.78
		Seismic	1.53	1.29
		Post Liquefaction	2.48	1.90
W14	88th Street NE	Compound - Static	1.76	1.73
		Compound - Seismic	1.53	1.27
		Compound - Post Liquefaction	1.97	1.87
W16	88th Street NE	Static	1.63	1.71
		Seismic	1.46	1.40
		Post Liquefaction	NA	NA
W17	88th Street NE	Static	3.27	3.27
		Seismic	1.98	1.94
		Post Liquefaction	NA	NA
W18	88th Street NE	Static	2.55	2.11
		Seismic	1.59	1.39
		Post Liquefaction	2.68	2.19
W18	88th Street NE	Compound - Static	1.81	1.81
		Compound - Seismic	1.53	1.35
		Compound - Post Liquefaction	1.86	1.85

Three SEWs (W12B, W14, and W18) on sloping ground (above or below the wall) were evaluated for compound stability, assuming that geosynthetic reinforcements are within the reinforced zone of the wall, but specifically within the bottom 20 to 30 percent of the wall, in accordance with WSDOT GDM Section 15-5.3.4. At this time, we do not know what the reinforcement spacing and strength will be, therefore, a reinforcement with a minimum tensile strength of 2,000 lb/ft was used in the analysis. The compound stability analysis can be reevaluated later if the reinforcement spacing and strength are different. The results of our

analysis indicate that the compound and global stability of the MSE walls meet the required factors of safety for the Strength and Extreme Event limit states, as summarized in Table 10.

4.4 PROPOSED EXCAVATIONS

4.4.1 4th Street NE/Marine Drive NE Proposed Excavations

We understand that the construction of the proposed improvements along the 4th Street NE/Marine Drive NE corridor will require many temporary excavations to establish the proposed grade. Conducting some of the proposed excavations will require the removal of large quantities of soil.

As indicated by our interpretation of the geologic conditions along the 4th Street NE/Marine Drive NE corridor, we anticipate that the near-surface soils that will be encountered in the proposed excavations will include fill soils placed during previous construction activities and Marysville Sand. The fill and Marysville Sand soils—particularly when loose or saturated—are generally unstable and will readily slough. All temporary excavations should be conducted in accordance with our recommendations in Section 4.9.3 of this report and WSDOT Standard Specifications (WSDOT, 2025). Dewatering will be required, as excavations will encounter perched water or seepage or will extend below the groundwater table. Where groundwater seepage is encountered, erosion could occur, and the stability of temporary excavation slopes could be affected. The Contractor should be prepared to control groundwater and prevent erosion that could cause slope instability.

4.4.2 88th Street NE Proposed Excavations

We understand that the construction of the proposed improvements along the 88th Street NE corridor will require many temporary excavations, including the removal of the existing culvert and gabion wall structure where Coho Creek crosses beneath 88th Street NE, excavating down to the top of shaft and bottom of wall elevations at the proposed bridge abutments, and to establish the proposed new grade along the creek alignment. Conducting some of the proposed excavations will require establishing temporary access roads within existing slopes and removal of large quantities of soil.

As indicated by our interpretation of the geologic conditions along the 88th Street NE corridor, we anticipate that the near-surface soil that will be encountered in the proposed excavations will include fill soils placed during previous construction activities and Marysville Sand. It should be noted that wood and peat were encountered in multiple samples in boring HWA-5 and HWA-20P directly below the gabion basket structure at Coho Creek.

The fill and Marysville Sand soils—particularly when loose or saturated—are generally unstable and will readily slough. All temporary excavations should be conducted in accordance with our

recommendations in Section 4.9.3 of this report and WSDOT Standard Specifications. Dewatering will be required as excavations will encounter perched water or seepage or will extend below the groundwater table. Where groundwater seepage is encountered, erosion could occur, and the stability of temporary excavation slopes could be affected. The Contractor should be prepared to control groundwater seepage and prevent erosion that could cause slope instability.

Although not encountered in our borings, HWA anticipates that cobbles or boulders could be encountered in the proposed excavations. The bid documents should include a bid item for removal of obstructions.

4.4.3 Dewatering Considerations

It is our understanding that the bottom of the pile caps will be at approximately elevation 22.5 feet for the western abutment and 24 feet for the east abutment, which are below the groundwater table as mentioned in Section 3.4.2 of this report. Additionally, the proposed finish grade at Coho Creek is about 25 feet, which is also below the groundwater table, as determined by the groundwater elevations observed in our explorations.

Measured groundwater data from the monitoring wells installed in borings HWA-20P and HWA-4P indicate that the shallowest groundwater elevation was at elevation 28.1 feet and 31.8 feet, respectively. Therefore, due to the coarse-grained nature of the surrounding soils, we expect that extensive dewatering will be required for the construction of the foundation pile caps and associated wing walls, and establishment of the new stream alignment. We recommend that excavations be dewatered through the installation of dewatering wells and well points.

The design and implementation of any dewatering system should be the responsibility of the contractor and their delegated design professionals.

4.5 Coho Creek Bridge Foundation Design

We recommend that the bridge abutments be founded on drilled shaft foundations that bear in the Marysville Sand deposits, beyond the liquefiable material (minimum tip elevation of -41 feet). We understand that these foundations will consist of 8-foot-diameter drilled shafts with a center-to-center spacing of 3 shaft diameters (24 feet) and that the elevation of the top of the shafts will be about 22.5 feet and 24 feet for the west and east abutments, respectively.

4.5.1 Drilled Shaft Foundation Axial Capacity

Nominal axial shaft capacities were evaluated in general conformance with the procedures specified per section C10.8.1.5 of the AASHTO LRFD Bridge Design Specifications, 9th Edition (AASHTO, 2020).

Axial shaft capacities will be derived from both shaft friction and end bearing. Axial shaft capacities versus embedment depths for both abutments for the Coho Creek bridge are presented in Appendix E, Figures E-1 and E-2, for 8-foot-diameter shafts with center-to-center spacing of 24 feet (3 shaft diameters). As described in the notes attached to these figures, the appropriate resistance factors (ϕ) for side and base has been applied to the factored total axial resistance for Service I, Strength I, and Extreme I Limit States. The nominal side and base resistance values presented do not include the resistance factors.

If permanent casing is incorporated into the shaft design to help control lateral displacements, the side resistance values presented in Appendix E shall be reduced by a factor of 0.6 along the portion of the shaft where permanent casing is present. The nominal base and total factored axial capacities provided have been reduced to account for the weight of each drilled shaft with appropriate load factors applied for each limit state. The weight of each drilled shaft is calculated from the proposed shaft top elevation provided on the assumed subsurface profile presented on Figures E-1 and E-2. Weight of the shaft caps, columns, or shafts extending above the assumed top-of-shaft elevation should be added to the design loads for structural design of the proposed drilled shaft foundations.

For the Service I Limit State, total shaft resistance (i.e., friction plus end bearing) is provided for an allowable settlement of 1 inch. If a Service I Limit State capacity for a different settlement value (e.g., 2 inches or ½ inch) is needed, we should be contacted to revise our calculations.
Down Drag Loads

Down drag loading on shafts occurs when the surrounding soil settles or otherwise moves downward relative to the shaft. Downward movements on the order of ¼ inch are sufficient to fully mobilize negative shaft resistance or down drag.

Due to the presence of a large peat deposit encountered in boring HWA-20P (which is assumed to exist beneath the location of the eastern abutment of the proposed Coho Creek bridge), the eastern abutment drilled shafts may experience down drag loading due to consolidation settlement of the peat deposit. The down drag loading due to consolidation settlement should be applied to the Strength Limit State, as shown on Figure E-2. Down drag loading due to consolidation is not expected at the western abutment.

As indicated above, liquefiable soils are present along the proposed bridge alignment. These soils are expected to undergo liquefaction-induced settlement because of the design earthquake. This liquefaction-induced settlement will cause down drag loading on the drilled shafts at both abutments. The down drag loading due to liquefaction induced settlement should be applied to the Extreme Event Limit State.

The unfactored down drag forces due to consolidation settlement and liquefaction-induced settlement are listed on the axial shaft capacity charts, in Appendix E, Figures E-1 and E-2.

4.5.2 Group Reduction Factors for Axial Shaft Capacity

For 8-foot-diameter shafts with 24-foot center-to-center spacing (i.e., 3 shaft diameters) and single row shaft group configuration, a group reduction factor (η) of 1.0 should be applied to the axial shaft capacities presented for all Limit States. Placement of a drilled shaft less than 3 shaft diameters from an existing shaft reduces the effective stresses against both the side and base of the existing shaft. As a result, the capacities of individual drilled shafts within a group tend to be less than the corresponding capacities of isolated shafts.

If any of the above assumptions and conditions presented in this section are not valid, we should be notified, and the design charts should be reviewed and modified, as necessary.

4.5.3 Drilled Shaft Lateral Design Parameters

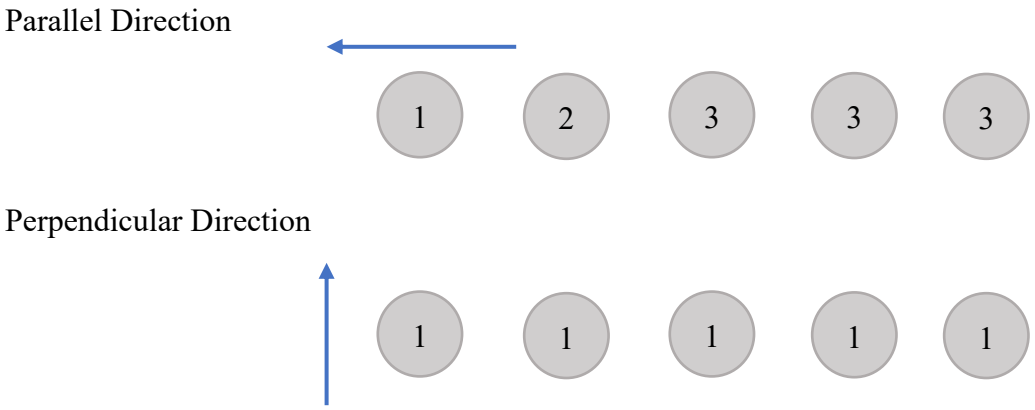
The proposed drilled shafts will extend into and terminate within the Marysville Sand unit. We understand that the design team desires to use a conventional p-y method of lateral analysis (i.e., LPILE; Ensoft, 2022 to estimate shears, moments, and deflections of the shafts. Soil parameters for use in LPILE analyses are provided in Appendix F. The soil parameters provided in Appendix F may be used with LPILE for lateral structural analysis and design of the abutments. Parameters are provided for static and seismic analyses.

The p-y curves generated by the lateral parameters provided in Appendix F must be modified by the applicable p-multipliers to account for group reduction effects. The p-multipliers for a shaft spacing of 3 shaft diameters (8-foot-diameter shafts on 24-foot spacing) and 3.5 shaft diameter (8-foot-diameter shafts on 28-foot spacing) are provided in Table 11.

Table 11: P-Multipliers for Center-to-Center Spacing of 3 and 3.5 Shaft Diameters

Row	P-Multiplier (3D)	P-Multiplier (3.5D)
1	0.8	0.85
2	0.4	0.51
3 or more	0.3	0.4

The same p-multiplier factor should be applied parallel and perpendicular to the group shaft alignment. The following diagram shows how the p-multipliers should be assigned with respect to the load direction and shaft orientation.



4.5.4 Abutment Earth Pressures

We have provided lateral earth pressures associated with the strength and service limit state (static) and extreme limit state for both the western and eastern abutments as shown on Figures 6A and 6B, respectively. These earth pressures assume no accumulation of water behind the wall. Proper wall drainage should be provided to ensure that hydrostatic pressures do not develop behind the wall structure. The earth pressures presented on each figure correspond to a level back slope configuration that is assumed to exist at both bridge abutments.

4.5.5 Drilled Shaft Construction Considerations

The drilled shafts will be drilled through the fill, peat, and Marysville Sand soil units and will terminate in the loose to dense Marysville Sand. The drilled shaft contractor should be prepared for difficult drilling conditions, including caving, drilling below the groundwater table, and removal of obstructions such as logs and boulders. We expect that installing the shafts with the oscillating casing method of shaft construction would represent the lowest risk of encountering installation challenges. However, conventional shaft installation techniques could be used. The choice of shaft installation techniques should be specified and should be determined based on risk management.

Given the loose to medium dense soil conditions, the existing fill and Marysville Sand deposits will cave during excavation for the proposed drilled shafts. Prospective contractors should assume that casing and use of slurry will be required during drilled shaft excavation to maintain stability of the hole during shaft excavation for all the shafts.

The groundwater table is higher than the top-of-shaft elevation at both abutments. The contractor should be prepared to construct the shafts below the groundwater table and provide appropriate methods for stabilizing the sides and bottom of the shaft excavations. We expect the soils excavated from the shafts will require decanting prior to being transported off site. The contractor should be prepared to undertake decanting of the soil excavated from the drilled shafts.

Wood was encountered in borings HWA-5 and HWA-20P below the existing fill. The drilled shaft contractor should be prepared to handle large logs. Although not encountered in our geotechnical borings, Marysville Sand soils are known to contain cobbles and boulders. Per the Unified Soil Classification System (USCS), cobbles are defined as a rock with a minimum dimension between 3 and 12 inches; boulders are defined as rock with a minimum dimension of 12 inches. The drilled shaft contractor should be prepared to handle cobbles and boulders.

Drilled shaft bottoms should be cleaned to the extent practical using appropriate excavation methods to provide for a relatively undisturbed shaft base. After the shaft bottoms are cleaned, concrete should be placed by the tremie method into the shafts. Concrete placement should be in accordance with Requirements for Placing Concrete and Placing Concrete Underwater as specified in Sections 6-02.3(6) and 6-19.3(7)D of the WSDOT Standard Specifications (WSDOT, 2025).

4.6 RETAINING WALL RECOMMENDATIONS

4.6.1 General

It is our understanding that this project will require the construction of five (5) new retaining walls along the 4th Street NE project corridor (designated W1 through W5) and eleven (11) new retaining walls along the 88th Street NE project corridor (designated W10 through W20) to accommodate the proposed site geometry and changes in grade within available ROW. These walls will consist of a combination of cut and fill walls ranging in height from 2 to 22 feet, with lengths varying from 41 to 590 feet long. The location and designation of each wall is indicated on Figures 2A and 2B, Site and Exploration Plan. Table 12 below provides a summary of the proposed retaining structures.

Additionally, two sheet pile walls will be constructed in front of the abutments to provide scour protection and improve the long-term stability of the structures.

Table 12: Retaining Wall Summary

Wall Designation	Location	Wall Application	Max Exposed Height (feet)	Wall Length (feet)	Soldier Pile Minimum Length [(d)]	Wall Type	Approximate Excavation Width for Structural Earth Wall (feet)[(a)]	Anticipated Liquefaction-Induced Settlements (inches)
W1	See Figure 2A	CUT	10	100	20	Soldier Pile	--	7[(b)]
W2	See Figure 2A	CUT	10	100	20	Soldier Pile	--	9[(b)]
W3	See Figure 2A	CUT	10	100	20	Soldier Pile	--	10[(b)]
W4	See Figure 2A	CUT	10	90	20	Soldier Pile	--	2[(b)]
W5	See Figure 2A	FILL	3.4	90	N/A	SEW	--	--[(c)]
W10	See Figure 2B	FILL	10	22	35	Soldier Pile	--	14
W11	See Figure 2B	FILL	8	35	N/A	SEW	22	12
W12A	See Figure 2B	FILL	24.5	49	56	Soldier Pile		8
W12B	See Figure 2B	FILL	6	96	N/A	SEW	31	
W13	See Figure 2B	FILL	16	163	45	Soldier Pile	--	15
W14	See Figure 2B	FILL	6	279	N/A	SEW	17	1[(b)]

Wall Designation	Location	Wall Application	Max Exposed Height (feet)	Wall Length (feet)	Soldier Pile Minimum Length [(d)]	Wall Type	Approximate Excavation Width for Structural Earth Wall (feet)[(a)]	Anticipated Liquefaction-Induced Settlements (inches)
W16	See Figure 2B	FILL	4	66	8	Soldier Pile	--	0[(b)]
W17	See Figure 2B	FILL	19	500	38	Soldier Pile	--	2[(b)]
W18	See Figure 2B	FILL	16	588	N/A	SEW	--	2[(b)]
W19	See Figure 2B	FILL	3	195	N/A	Block Wall or SEW	--	0[(c)]
W20	See Figure 2B	FILL	3	93	N/A	Block Wall or SEW	--	0[(c)]

(a) Provided widths are for estimating purposes. The required excavation could vary depending on soil conditions encountered at specific locations, the contractor's proprietary wall design and the contractor's means and methods.

(b) As discussed in Section 4.2.5, estimates of liquefaction-induced settlement are based on borings that have termination depths of less than 80 feet. Therefore, there is not enough information to accurately estimate total expected liquefaction induced settlement because it is possible that liquefaction-induced settlement could occur between the termination depth of those borings and 80 feet bgs. As a result, the values presented in Table 10 for estimated liquefaction-induced settlement for Walls W1 through W4 and W14 through W20 should be considered an underestimate.

(c) Wall is less than 4 feet of retained height. Liquefaction was not evaluated.

(d) Minimum soldier pile length presented in the table is required to meet global stability evaluation for all Limit States. However, the actual length will be determined by the structural team.

The wall profiles show that the 4th Street NE/Marine Drive NE walls (W1 through W4) will be connected to the existing walls beneath the I-5 bridge. Similarly, the proposed location of wall W17 is adjacent to existing retaining walls and roadways. Given the proposed heights, constructing a SEW in these areas without impacting the existing retaining walls and adjacent roadways is considered infeasible. Therefore, we recommend that walls W1 through W4, and W17 be soldier pile walls with the existing retaining walls being left in place. Removal of the existing walls could impact stability and induce movement in the retained soil that underlies portions of I-5 (walls W1 through W4) and 88th Street NE (wall W17).

The wall profiles and plans show that the proposed retaining walls will be used to widen roadways and are therefore adjacent to existing roadways. Due to the presence of potentially liquefiable soils, we recommend that most of the walls, when feasible, be designed as SEWs, as this type of wall can tolerate several inches of settlement. However, SEWs could require significant excavation to accommodate the placement of the geogrid (reinforcement) layers. We recommend a reinforcement length of at least 8 feet or 1.0H of the proposed wall height. Excavations for SEWs may encroach into the travel lanes, limiting maintenance of traffic (MOT). If encroachment of travel lanes is not acceptable, we recommend that these walls consist of soldier pile and lagging walls to limit excavation requirements. We understand that walls W19 and W20 (which are less than 4 feet in height), could be constructed as modular block gravity walls or SEW.

For walls founded on slopes, a 4-foot-wide (minimum) horizontal bench should be constructed at the wall face to provide access for maintenance, per GDM Section 15-4.4 (WSDOT, 2022).

4.6.2 Block and Structural Earth Walls

We assume that block and SEW walls will consist of a proprietary wall system and that the wall supplier will design the wall for internal stability. The walls should be designed in accordance with the AASHTO *LRFD Bridge Design Specifications* (AASHTO, 2020) and Section 6-13.3(2)A of the 2024 *WSDOT Standard Specifications*. We understand the design for these walls will be performed using Load and Resistance Factor Design (LRFD). We recommend the walls be designed using the parameters presented in Table 13, including the geotechnical resistance factors.

All the walls should be designed to accommodate a differential settlement of 1.0 inch over 100 feet of wall length for static loading. Walls should be designed to accommodate the differential settlement presented in Table 12, over 100 feet of wall length for the post-liquefaction condition. We recommend the wall be embedded at least 1.0 foot below the finished grade.

Proper wall construction and drainage is essential to prevent premature failure of the wall system. We recommend the bottom course of blocks be placed on a 0.5-foot-thick leveling pad

consisting of either unreinforced concrete pad or crushed surfacing base course (CSBC) compacted to 95 percent of Modified Proctor maximum dry density, as determined by ASTM D 1557. This leveling pad should be at least 6 inches thick and graded to establish the proper wall batter.

Table 13: Recommended Design Parameters for Block and Structural Earth Walls

Soil Properties	Wall Backfill	Retained Soil	Foundation Soil
Unit Weight (pcf)	135	120	120
Friction Angle (deg)	36	35	35
Cohesion (psf)	0	0	0
		AASHTO Load Group I (EP+LL)	**AASHTO Load Group VII (EP+EQ)**
Allowable Bearing Capacity (psf)		2,000	3,000
Acceleration Coefficient (g)		N/A	0.265
Anticipated Differential Settlement Over 100-feet of wall length		1.0 inches	See Table 12
Recommended Geotechnical Resistance Factors			
Limit State	**Bearing Resistance**	**Shear Resistance to Sliding**	**Passive Pressure Resistance to Sliding**
Strength	0.55	0.9	0.5
Service	1	-	-
Extreme Event	0.9	1	1

4.6.2.1 Wall Subgrade Preparation

Subgrade preparation is important to limit differential settlement of walls and maintain global stability. All organic material should be removed from beneath the entire footprint of the modular block walls. Loose or soft soil, defined as being penetrable more than 1 foot with a ½-inch-diameter rod pushed in under a 150 lb load (e.g., T-probe pushed in by hand), should be removed and replaced with “Structural Backfill” or be suitably compacted.

All areas on which the wall will bear should be graded level perpendicular to the wall face and compacted in accordance with Section 2-03.3(14)C of the WSDOT Standard Specifications (WSDOT, 2025).

We recommend an HWA geotechnical engineer, or their representative, be present during construction to verify the assumptions made for the foundations of the walls are met. The depth and extent of excavation will be directed by the geotechnical engineer on site.

4.6.2.2 Wall Backfill Compaction and Placement

We recommend walls be backfilled with Gravel Backfill for Walls, as specified in Section 9-03.12(2) of Standard Specifications (WSDOT, 2025). All wall backfills should be compacted to 95 percent of its maximum dry density as determined by ASTM D 1557, as specified in Section 2-03.3(14)C, Method C, of the WSDOT Standard Specifications. Heavy compactors and large pieces of construction equipment should not operate within 5 feet of the elevated side of any embedded wall to avoid the buildup of excessive lateral pressures.

Wall backfill will be placed against the excavation required to install the wall. Fill placement against an existing slope will require terraced cuts as outlined in Section 2-03.3(14)B, Embankment Construction, of the Standard Specifications (WSDOT, 2025).

4.6.2.3 Wall Drainage

A 4- to 6-inch-diameter perforated drainpipe should be installed behind the base of the proposed walls to collect and convey seepage from behind the wall. The drainpipe should be bedded and backfilled with Gravel Backfill for Drains, as specified in Section 9 03.12(4) of the Standard Specifications (WSDOT, 2025). The drainpipe should be sloped to drain and routed to an appropriate discharge location.

4.6.3 Soldier Pile and Lagging Walls

As previously discussed, we recommend that walls W1 through W4 for 4th Street NE and Walls 10, 12A, W13, W16, and W17 for 88th Street NE sites be constructed as cantilevered soldier pile walls. Cantilevered soldier pile wall systems rely on embedment below the retained portion of the wall without tieback anchors to support the lateral earth pressures exerted by the retained soil. For cantilevered soldier pile and lagging walls, steel H-piles are generally placed in drilled shafts, spaced at approximately 6- to 8-foot centers. The diameters of the typical soldier pile shaft excavations are on the order of 2 to 3 feet and are imbedded below the bottom of the excavation. Once the H-piles are installed, the drilled shafts shall be filled with concrete or controlled density flowable fill (CDF). Typically, conventional concrete is only used to fill the holes below the base of the wall as a structural toe; we recommend that the shaft be filled to the

existing ground surface. Excavation occurs from the top down, and lagging members are placed between the installed H-piles as the excavation progresses.

Lateral earth pressure diagrams for retaining walls W1 through W4, W10, W12A, W13, W16 and W17 are shown on Figures 7A through 7F. The earth pressures presented on those figures assume a fully drained condition (i.e., no hydrostatic pressure is allowed to build up) above the base of the excavation. Passive earth resistance pressures are assumed to act over two shaft diameters for Strength and Service Limit State and Extreme Limit State (seismic) limit states. Active earth pressures are assumed to act over one shaft diameter, below the base of the excavation, and across the pile spacing for the retained portion of the wall (above the base of the fascia).

HWA recommends that the temporary timber lagging be sized using the procedures outlined in the Federal Highway Administration's Geotechnical Engineering Circular No. 4. Lagging should be installed promptly after excavation, especially in areas where groundwater is present or where clean sand and gravel soils are present and caving soil conditions are likely. The workmanship associated with lagging installation is important for maintaining the integrity of the excavation.

When soldier pile walls are constructed, lagging is placed between the pile in regular sections, generally not more than 4 feet in height. After lagging a section, the voids behind the lagging should be backfilled with a flowable fill, such as pea gravel or CDF. The voids behind the lagging should be backfilled immediately or within a single shift, depending on the selected method of backfill.

4.6.4 Soldier Pile Wall Drainage

Adequate drainage is critical for long-term performance. We recommend installing prefabricated drainage mats, such as MiraDrain 6000 or similar, in front of the lagging centered between soldier pile flanges, which should extend the full height of the wall. A weep hole should be installed at the base of the wall within each drain mat section to allow drainage of seepage through the concrete fascia. Drainage at the base of the wall should consist of a minimum 4-inch-diameter perforated drainpipe, surrounded by free-draining material to collect and convey seepage from behind the wall. The free-draining material should consist of Gravel Backfill for Drains, as specified in Section 9-03.12(4) of the *Standard Specifications* (WSDOT, 2025). The drainpipe should be sloped to drain and routed to an appropriate discharge location.

4.6.5 SEW or Block Wall Drainage

A 4- to 6-inch-diameter perforated drainpipe should be installed behind the base of the proposed walls to collect and convey seepage from behind the wall. The drainpipe should be bedded and backfilled with Gravel Backfill for Drains, as specified in Section 9 03.12(4) of the Standard

Specifications (WSDOT, 2025). The drainpipe should be sloped to drain and routed to an appropriate discharge location.

4.6.6 Soldier Pile Shaft Construction Considerations

The soldier pile shafts will be drilled through the fill, peat, and Marysville Sand soil units and will terminate in the loose to dense Marysville Sand. The shaft contractor should be prepared for difficult drilling conditions, including caving, drilling below the groundwater table, and removal of obstructions such as logs and boulders. We expect the soils excavated from the shafts will require decanting prior to being transported off site. The contractor should be prepared to undertake decanting of the soil excavated from the shafts.

Given the loose to medium dense soil conditions, the existing fill and Marysville sand deposits will cave during excavation for the proposed soldier pile shafts. Prospective contractors should assume that temporary casing and use of slurry will be required during soldier pile shaft excavation to maintain stability of the hole for all the shafts.

Wood was encountered near wall W12A, below the existing fill. The shaft contractor should be prepared to handle large logs. Although not encountered in our geotechnical borings, Marysville Sand soils are known to contain cobbles and boulders. Per the USCS, cobbles are defined as a rock with a dimension between 3 and 12 inches; boulders are defined as rock with a minimum dimension of 12 inches. The contractor should be prepared to handle cobbles and boulders.

4.6.7 Sheet Pile Wall

Two permanent sheet pile walls will be constructed in front of the abutments to provide scour protection. Lateral earth pressure diagrams for the western and eastern sheet pile walls are presented on Figures 8A and 8B, respectively. The pressures shown on these figures include hydrostatic pressure behind the retained soils.

The design team is evaluating the use of weep holes in the sheet piles to reduce the lateral earth pressures associated with hydrostatic buildup. We recommend that each weep hole has a minimum diameter of 3 inches. Because the wall is being designed to the scour elevation, we further recommend installing two rows of weep holes: one at the base of the exposed height and one near the scour level. This configuration provides a drainage path under both normal and scour conditions.

Maintenance of the weep holes should be anticipated as part of the long-term performance plan. Periodic inspection and cleaning will be necessary to reduce the risk of clogging from fine soil or debris, which could otherwise compromise the effectiveness of the drainage system and result in elevated pressures acting on the wall.

4.7 INFILTRATION

Design infiltration rates were evaluated in general accordance with the *Stormwater Management Manual for Western Washington* (SWMMWW; Ecology, 2024). Two methods were utilized to estimate the design infiltration rates including (1) the grain-size method, and (2) performance of small-scale Pilot Infiltration Tests (PIT). The methods and recommendations for use of infiltration are described below.

4.7.1 Grain Size Methodology

Our stormwater infiltration evaluation program used to assess potential to use infiltration across the two project corridors consisted of a desk study and review of grain size data for near-surface soils (upper 10 to 20 feet) using the Massmann criteria for estimating permeability of soils. This method estimates the permeability of granular materials using particle size distribution and fines content. It does not take into consideration the relative density of the soil, stratification, organic content, or other factors that may affect permeability *in-situ*. This exercise was conducted as a coarse screening mechanism to delineate infiltration potential along both project corridors. Infiltration rates were evaluated from 34 samples obtained from 15 of the 17 boreholes drilled for this project.

The SWMMWW recommends the following relationship may be used to determine initial infiltration rates using the results of soil grain size analyses for soils that have not been consolidated by glacial advance:

$$Log_{10}(K_{sat}) = -1.57 + 1.90D_{10} + 0.015D_{60} - 0.013D_{90} - 2.08_{fines}$$

Once the initial saturated hydraulic conductivity (Ksat) is obtained, the SWMMWW recommends using the following correction factors to estimate the design infiltration rate:

- The Partial Correction Factor for site variability and number of locations tested, CF_v, ranges from 0.33 to 1.0. The Partial Correction Factor for test method, CF_t, is 0.40 when using the grain size method or some other small-scale method (e.g., double ring, falling head). CF_t is 0.50 if a small-scale PIT is used, and 0.75 when a large-scale PIT is used. The Partial Correction Factor for the degree of influent control to prevent siltation and bio-buildup, CF_m, is typically 0.90.

- The Total Correction Factor, CF_T, is then equal to the three Partial Correction Factors multiplied together. The design infiltration rate, K_{sat}design, is calculated by multiplying the initial K_{sat} by the Total Correction Factor.

For the site variability correction factor, a value of 0.8 was used. Because the grain size method was used in the analyses, a value of 0.4 was used for the uncertainty of test method correction factor. A value of 0.9 was used for the degree of influent control to prevent siltation and bio-

buildup correction factor. Multiplying the values for the three Partial Correction Factors together resulted in a Total Correction Factor value of 0.288.

4.7.2 Pilot Infiltration Tests

As part of our infiltration program, HWA performed three small-scale pilot infiltration tests (PITs). The approximate locations of the tests are shown on the Site and Exploration Plan, Figures 2A and 2B. The tests were performed in accordance with the method described in Section V-5.4 of the SWMMWW. A legend of the terms and symbols used on the PIT logs is presented in Appendix A, Figure A-1. Logs of the PITs are presented on Figures A-25 through A-27.

4.7.3 Estimated Infiltration Rates

HWA evaluated the results obtained from the grain size infiltration analysis and the results of the PITs. Our evaluation indicates that infiltration is feasible along both project alignments within the Marysville Sand deposits. Table 14 presents the estimated infiltration rates recommended for the proposed stormwater facilities.

Table 14: Design Infiltration Rates

BMP Name (Provided by Parametrix)*	Approx. Bottom Depth (ft)**	Ksat (in/hr)	Groundwater elevation***
4th Street			
Infiltration Trench (A)	3	10.0	13ft (10ft bgs) (encountered in HWA-11)
88th Street NE			
Infiltration Vault (A)	11.8	8.1	21ft (25ft bgs) (encountered in HWA-6)
Infiltration Pond (A)	5	4	25ft (25 ft bgs) (encountered in HWA-8)
Infiltration Pond (B)	3	4	25ft (25 ft bgs) (encountered in HWA-8)
Infiltration Pond (C)	5	4	21ft (45 ft bgs) (encountered in HWA-23p)
Infiltration Vault (B)	5.25	10	Below 27 ft (>21 ft bgs) (GW not encountered in HWA-10)

* BMP name and type subject to change but may be used as a reference for identification.
** BMP depth are approximate and subject to change as design progresses.
*** Approximate elevation of ground water

4.7.4 Construction Considerations for Infiltration Facilities

Prior to the installation of infiltration facilities, the subgrade should be cut to the proposed receptor soils. A flat subgrade is preferred for the bottom of the infiltration facilities. The existing subgrade under areas used for infiltration should not be compacted or subjected to excessive construction equipment traffic prior to coarse aggregate bed placement. Where erosion of subgrade has caused accumulation of fine materials and/or surface ponding, this material should be removed with light equipment and the underlying soils scarified to a minimum depth of 8 inches. Subsurface conditions should be monitored and verified during construction by a qualified earthworks inspector.

4.8 LUMINAIRE FOUNDATION CONSIDERATIONS

4.8.1 General

HWA understands that new luminaires will be constructed as part of the proposed improvements. Luminaire foundation design for the project was completed by others. Construction considerations for luminaire foundations are provided below.

4.8.2 Construction Considerations for Luminaire Foundations

Shaft excavations for the proposed luminaire pole foundations will extend through very loose to medium dense, saturated fill and Marysville sand deposits for the various proposed locations along the project corridors. The contract documents should require the use of temporary casing for all shaft excavations.

The base of shaft excavations should be cleaned to the extent practical using appropriate methods. Groundwater seepage should be assumed at all shaft locations. The contractor should assume the use of tremie methods to pump concrete directly to the base of the excavation to displace the standing water rather than end-dumping from the surface.

We recommend that each shaft location be potholed to ensure the location is clear of subsurface utilities and structures, prior to construction. Where foundation/utility conflicts are present, the foundation location should be adjusted, or the utility should be relocated.

4.9 PAVEMENT DESIGN

4.9.1 General

It is our understanding that new full-depth pavement sections and structural overlays will be required for this project along both project corridors. We also understand that WSDOT will perform pavement design for the portions of the project that are within WSDOT ROW, and HWA will perform pavement design for the rest of the project areas that are outside WSDOT

ROW. The portions of the project that are within WSDOT ROW are illustrated by the red lines on Figures 9A and 9B. For the rest of the project area where HWA is responsible for pavement design, the dark blue hatch represents the areas that will have new full depth pavement. The rest of the areas where HWA is responsible for pavement design that are not hatched will receive a grind and overlay. The following sections present our new pavement design recommendations.

4.9.2 Design Traffic

Current design traffic parameters were provided by Parametrix, consisting of average daily traffic (ADT) counts from 2019, along with expected annual growth rates. The provided traffic data was divided into different segments within each project corridor. We picked the location (outside of WSDOT ROW) for each project corridor that had the highest total design Equivalent Single Axle Load (ESAL) values. We used recommended ESAL/vehicle FHWA Class values (0 for FHWA Classes 1-3, 0.4 for FHWA Classes 4-7, 1 for FHWA Classes 8-10, and 1.75 for FHWA Classes 11-13), a 30-year design life, and assumed 4 percent buses to calculate total design ESAL values.

A value of 21,176,254 ESALs was calculated and used for pavement design for the 88th Street NE project corridor. A value of 20,351,681 ESALs was calculated and used for pavement design for the 4th Street NE & Marine Drive NE project corridor.

The pavement recommendations presented in this report are based on these traffic calculations. If additional traffic count information is obtained that varies appreciably from these values, the recommendations given in this report should be reviewed and revised as necessary.

4.9.3 New Pavement Design

We performed a new pavement design for each project corridor. The only difference in input parameters for pavement design between the two project corridors was the total design ESALS.

The pavement designs are based on the design method given in the 1993 AASHTO Design Guide (AASHTO, 1993) using the following parameters:

- Design Life = 30 years
- Subgrade Resilient Modulus = 7,500 psi
- Reliability = 90%
- Initial Serviceability = 4.5
- Terminal Serviceability = 3.0

- Overall Standard Deviation = 0.5

These inputs result in a required AASHTO Structural Number (SN) of 5.85 for both project corridors. Table 15 provides our HMA design recommendations, including two different HMA and CSBC sections, that meet the required AASHTO SN of 5.85.

Table 15: Structure Requirements for New HMA Pavement – 30-Year Design Life

Option	Material Description	Minimum Layer Thickness (inches)	WSDOT Standard Specification
1	HMA	12	5-04 & 9-02.1
	CSBC	6	9-03.9(3)
2	HMA	11	5-04 & 9-02.1
	CSBC	9	9-03.9(3)

We recommend that the asphaltic layers consist of HMA Class ½-inch. Though not expected, where fine-grained subgrade soils are exposed, we recommend that a woven geotextile for soil stabilization meeting the requirements of Table 3 of Section 9-33.2(1) of the WSDOT Standard Specifications (WSDOT, 2025) be placed over the subgrade soils prior to placement and compaction of CSBC.

4.9.4 Hot Mix Asphalt Overlays

We understand that both project corridors will have areas that may be overlaid, as opposed to reconstruction. We recommend that 2 inches of HMA (upper lift) be milled prior to placing a 2-inch-thick HMA overlay. The milled surface should be thoroughly cleaned, and sufficient tack coat should be placed and allowed to break prior to constructing the new overlay. Some reflective cracking from existing cracks in the HMA should be anticipated in the overlay with time.

4.9.5 Hot Mix Asphalt Design Considerations

The following design considerations should be noted and implemented:

- The longitudinal joints in the HMA wearing course should coincide with a lane line or an edge line.

- The pavement will likely require a functional overlay after about 10 to 12 years because of non-structural-associated distress caused by environmental factors such as degradation of the asphalt surface.

- HMA pavements are susceptible to shoving and rutting from heavy vehicles such as buses and heavy delivery trucks, particularly at intersections. In these areas, more frequent maintenance and even premature reconstruction of the pavement may be required.

4.9.6 Hot Mix Asphalt Binder Selection

The selection of the optimum asphalt binder type for the prevailing climate is critical to ensure long-term pavement performance. Use of the wrong binder can result in low-temperature cracking or permanent deformation at high temperatures.

Based on the climate in Tulalip/Marysville and the traffic loading, we recommend Superpave Performance Grade binder PG 58H-22 be used.

4.9.7 Placement of Hot Mix Asphalt

Placement of HMA should be in accordance with Section 5-04 of the WSDOT Standard Specifications (WSDOT, 2025). Attention should be paid to the following:

- HMA should not be placed until the CSBC has been thoroughly compacted and evaluated by a geotechnical engineer or qualified earthworks inspector.

- HMA should not be placed until the engineer has evaluated and approved the surface following any grinding. In some areas, deeper grinding may be required due to distresses observed in the layer after initial grinding.

- HMA should not be placed on any frozen or wet surface.

- HMA should not be placed when precipitation is anticipated before the pavement can be compacted, or before any other weather conditions which could prevent proper handling and compaction of HMA.

- HMA should not be placed when the average surface temperatures are less than 45° F.

- HMA temperature behind the paver should be more than 240° F. Compaction should be completed before the mix temperature drops below 180° F. Comprehensive temperature records should be kept during the HMA placement.

- Sufficient tack coat must be applied uniformly and allowed to break and set before placing HMA above an existing HMA layer to create a strong bond between layers. The surface of the pavement should be thoroughly cleaned prior to tack coat application. Improper tack coat application can cause unbonded layers and will lead to premature pavement distress/failure.

- For cold joints, tack coat should be applied to the edge to be joined, and the paver screed should be set to overlap the first mat by 1 to 2 inches.

4.9.8 Subgrade Preparation

Site preparation for the new pavement sections should begin with the excavation of all existing materials down to a depth sufficient to accommodate the new structure. The exposed soils should be thoroughly compacted and evaluated by a geotechnical engineer or qualified earthworks inspector. If loose, pumping, or otherwise unsuitable soils are encountered at the bottom of the pavement section, they should be over excavated as directed by the geotechnical engineer and backfilled using CSBC per the recommendations in the following section.

4.9.9 Structural Fill and Compaction

Imported structural fill for pavement base course and any areas of over excavation should consist of CSBC, as described in Section 9 03.9(3) of the WSDOT Standard Specifications (WSDOT, 2025).

Structural fill should be placed in loose, horizontal, lifts of not more than 8 inches in thickness and compacted to at least 95 percent of the maximum dry density, as determined using test method ASTM D 1557 (Modified Proctor). At the time of placement, the moisture content of structural fill should be at or within 2 percent of optimum. The procedure required to achieve the specified minimum relative compaction depends on the size and type of compaction equipment, the number of passes, thickness of the layer being compacted, and the soil moisture-density properties.

4.9.10 Drainage

It is essential to the satisfactory performance of the roadway that good drainage is provided to prevent water ponding on or alongside, or accumulating beneath, the pavement. Water ponding can cause saturation of the pavement and subgrade layers and lead to premature failure. The surface of the pavement should be sloped to convey water from the pavement to appropriate drainage facilities.

4.10 General Earth Work

4.10.1 Structural Fill

The onsite soils have a wide range of silt contents and are moisture sensitive. We do not recommend reusing the onsite soil as structural fill for this project. Structural fill should consist of clean, free-draining, granular soils free from organic matter or other deleterious materials. Such materials should be less than 4 inches in maximum particle dimension, with less than 7 percent fines (portion passing the U.S. Standard No. 200 sieve), as specified for Crushed

Surfacing in Section 9-03.9(3) of the WSDOT Standard Specifications (WSDOT, 2025). The fine-grained portion of structural fill soils should be non-plastic. Fill material having a fines content greater than 7 percent may be acceptable for structural fill in certain applications if the earthwork is performed during relatively dry weather and the contractor's methods achieve proper compaction of the soil. Material with a fines content greater than 7 percent should be approved by the project engineer prior to use.

4.10.2 Compaction

Structural fill soils should be moisture conditioned and compacted to a dense and unyielding condition and to the requirements specified in Section 2-03.3(14)C, Method C, of the WSDOT Standard Specifications; except the standard of compaction achieved should not be less than 95 percent of the maximum dry density determined for the fill materials by test method ASTM D 1557 (Modified Proctor). Structural fill should be placed and compacted in loose, horizontal lifts of not more than 8 inches in thickness. Subgrade compaction in roadbed areas should conform to the requirements of Section 2-06.3(1) of the WSDOT Standard Specifications.

At the time of placement, the moisture content of structural fill should be at or near optimum. Achievement of proper density of a compacted fill depends on the size and type of compaction equipment, the number of passes, thickness of the layer being compacted, and soil moisture-density properties. In areas where limited space restricts the use of heavy equipment, smaller equipment can be used, but the soil must be placed in thin enough layers and at the proper moisture content to achieve the required relative compaction. Generally, loosely compacted soils result from poor construction techniques and/or improper soil moisture content. Soils with high fines contents are particularly susceptible to becoming too wet and coarse-grained materials easily become too dry for proper compaction.

4.10.3 Temporary Excavation

In accordance with Part N of Washington Administrative Code (WAC) 296-155, all temporary cuts more than 4 feet in height must be either sloped or shored prior to entry by personnel. The stability and safety of temporary excavation slopes are influenced by several factors, including: (1) the presence and movement of water due to seepage or precipitation, (2) the type and condition of soils exposed in the excavation, (3) excavation depth, (4) any surface loads near the top of the slope, and (5) weather conditions during construction. Given the variability of these factors, slope recommendations made prior to construction are necessarily preliminary. It is the Contractor's responsibility to manage excavation slopes in the field, where real-time conditions can be monitored and addressed. All applicable excavation safety regulations, including those under WAC 296-155, must be observed.

We anticipate that excavations of the on-site soil could be accomplished with conventional excavating equipment, such as backhoes, dozers, or front-end loaders. Provided that the

groundwater is adequately controlled prior to excavation and that no significant surcharge loads are present near the top of the excavation, it is our opinion that for planning purposes, the existing soils are generally classified as Type C soils per WAC 296-155 and may be sloped as shallow as 1.5H:1V (horizontal to vertical). Steeper and/or flatter slopes could be utilized depending on the subsurface conditions encountered, the duration that the excavation must remain open, and the weather encountered. Flatter slopes may be necessary during wet weather. This should be evaluated by the on-site engineering personnel as the excavation is accomplished.

Exposed cut slopes may need to be protected with a waterproof covering during periods of wet weather to reduce sloughing and erosion. All traffic and/or construction equipment loads, excavated material, and stockpiles of construction materials should be set back from the edge of the cut slopes at a suitable distance, depending on the depth of the excavation and the material encountered.

4.10.4 Wet Weather Earth Work

General recommendations related 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 of unsuitable and/or softened soil should be followed promptly by placement and compaction of clean structural fill. The size and type of construction equipment used may need 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.

- Material used as excavation backfill in wet weather should consist of clean granular soil with less than 5 percent passing the U.S. No. 200 sieve, based on wet sieving the fraction passing the ¾-inch sieve. The fines should be non-plastic. It should be noted that this is an additional restriction on the structural fill materials specified.

- The ground surface within the construction area should be graded to promote surface water run-off and to prevent ponding.

- Within the construction area, the ground surface should be sealed on completion of each shift by a smooth drum vibratory roller, or equivalent, and under no circumstances should soil be left uncompacted and exposed to moisture infiltration.

- Excavation and placement of backfill materials should be monitored by a geotechnical engineer experienced in wet weather earthwork to determine that the work is being

accomplished in accordance with the project specifications and the recommendations contained herein.

- Bales of straw combined with other best management practices such as geotextile silt fences should be strategically located to control erosion and the movement of soil.

4.10.5 Dewatering

Groundwater and surface water management will be necessary wherever they are encountered during the project. A dewatering system will be required to maintain safe, stable, and dry working conditions within excavations. Proper water control will reduce the risk of problems such as slope instability, seepage-related erosion, loss of fines, sand boils, or softening of foundation soils at the base of excavations.

To manage stormwater runoff, measures such as constructing diversion berms, grading adjacent ground surfaces, installing slope protection, and directing runoff to sumps should be considered. Depending on site conditions, a combination of sumps, sump pumps, dewatering wells, wellpoints, and ditches may be required. Additional measures should be implemented as needed to:

- Direct surface water away from excavations
- Prevent water ponding adjacent to work areas
- Minimize erosion, seepage, and infiltration along excavation faces
- Support efficient and safe completion of construction activities

Earthwork conducted during the wet season typically takes longer and is more costly than work performed during dry periods. Groundwater levels are also likely to rise during and after heavy rainfall, potentially requiring additional dewatering components and extended pump operation to achieve the drawdown needed below excavation levels.

Removal of the existing culvert and construction of the pile caps, adjacent wingwalls, and new stream alignment is expected to involve excavation below the groundwater table, within fill materials and Marysville Sand deposits. A construction dewatering system will be necessary to control groundwater inflow, reduce slope instability, limit seepage-induced erosion, and lower hydrostatic pressures and hydraulic gradients to avoid base or slope instability.

The type of dewatering system used by the contractor will depend on several factors, including soil conditions, aquifer thickness, equipment used, excavation depth relative to the aquifer base, required drawdown, anticipated groundwater inflows, and contractor experience managing wet soil conditions.

The design, installation, operation, and removal of the dewatering system is the responsibility of the contractor. This report does not specify exact equipment or system components; based on subsurface explorations, soil classifications, grain-size analyses, and experience on similar projects, we expect that pumped wells will be required where significant dewatering efforts are required such as the construction of the bridge abutments, SEWs, and excavations associated with the stream alignment. It should be noted that even if pumped dewatering wells are used to control groundwater, it is our opinion that sumps will still be required to manage the residual groundwater seepage at the site. This is because subsurface conditions at the site appear to be heterogeneous and often contain stratified layers of higher and lower permeability materials. The lower permeability fine-grained layers will result in perched groundwater flow zones that must be managed and controlled. Sumps are an efficient way to manage perched groundwater and residual seepage not completely intercepted by wellpoints and/or wells.

5. CONDITIONS AND LIMITATIONS

We have prepared this report for Parametrix, Inc. and the Tulalip Tribes of Washington for use in design for this project. Experience has shown that soil and groundwater conditions can vary significantly over small distances and with time. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study of this scope and nature. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary. If there is a substantial lapse of time between submission of this report and the start of construction, or if conditions change due to construction operations, it is recommended that this report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse.

The engineering recommendations provided in this report are contingent to good construction practice. Poor construction techniques and methods may alter the subsurface conditions from which our recommendations are based and may result in unsatisfactory performance of the proposed structures.

We recommend HWA be retained to review the plans and specifications to verify that our recommendations have been interpreted and implemented as intended. Sufficient geotechnical monitoring, testing, and consultation should be provided during construction to confirm the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or groundwater at this site.

HWA does not practice or consult in the field of safety engineering. We do not direct the contractor's operations and cannot be responsible for the safety of personnel other than our own on the site. As such, the safety of others is the responsibility of the contractor. However, the contractor should notify the owner if any of the recommended actions presented herein are considered unsafe.

We appreciate the opportunity to provide geotechnical services on this project. Should you have any questions or comments, or if we may be of further service, please do not hesitate to call.

Sincerely,

HWA GEOSCIENCES INC.

Sandy Brodahl, P.E.
Geotechnical Engineer, Principal

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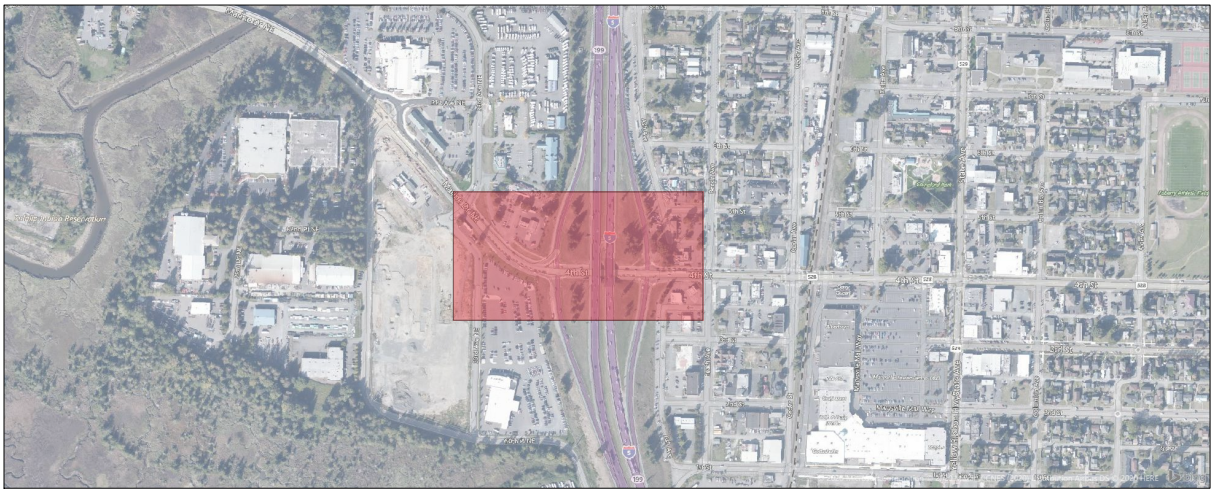
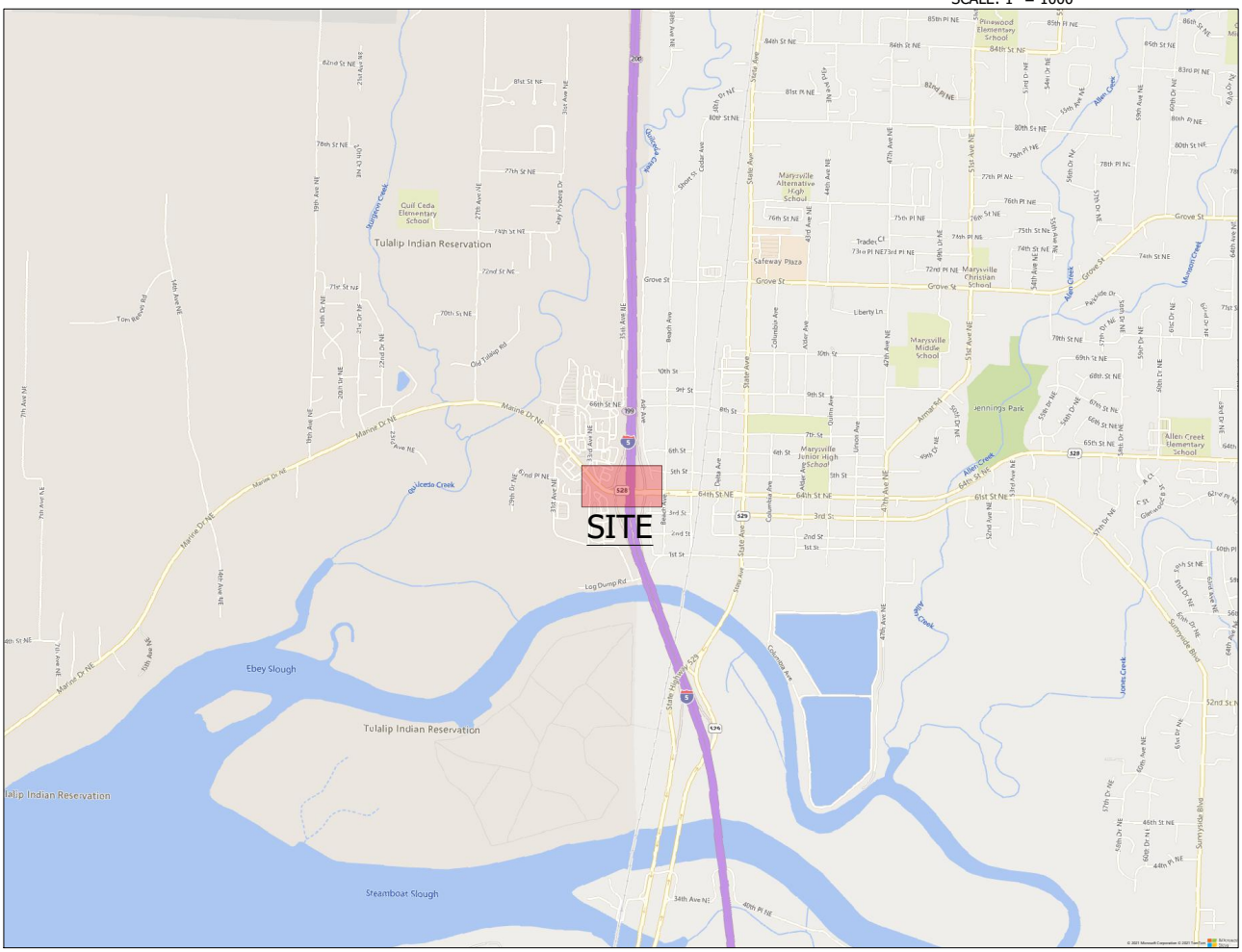


SITE MAP
4TH STREET NE & MARINE DR NE
Scale: 1" = 1000'-0"

0 500' 1000' 1500' 2000'
SCALE: 1" = 1000'



VICINITY MAP
4TH STREET NE & MARINE DR NE
Scale: 1" = 3000'-0"

0 1500' 3000' 4500' 6000'
SCALE: 1" = 3000'

GeoSciences Inc.
DBE/MWBE

SITE AND VICINITY MAP

I-5/4TH STREET AND 88TH STREET NE
CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

FIGURE NO.: 1A
DRAWN BY: CF
CHECK BY: SRB/SM
PROJECT # 2019-127-21

S:\2019 PROJECTS\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGES IMPROVEMENTS\CAD\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS (4TH ST).DWG <1A> Plotted: 8/9/2022 4:43 PM

SITE MAP
88TH STREET NE
Scale: 1" = 1000'-0"

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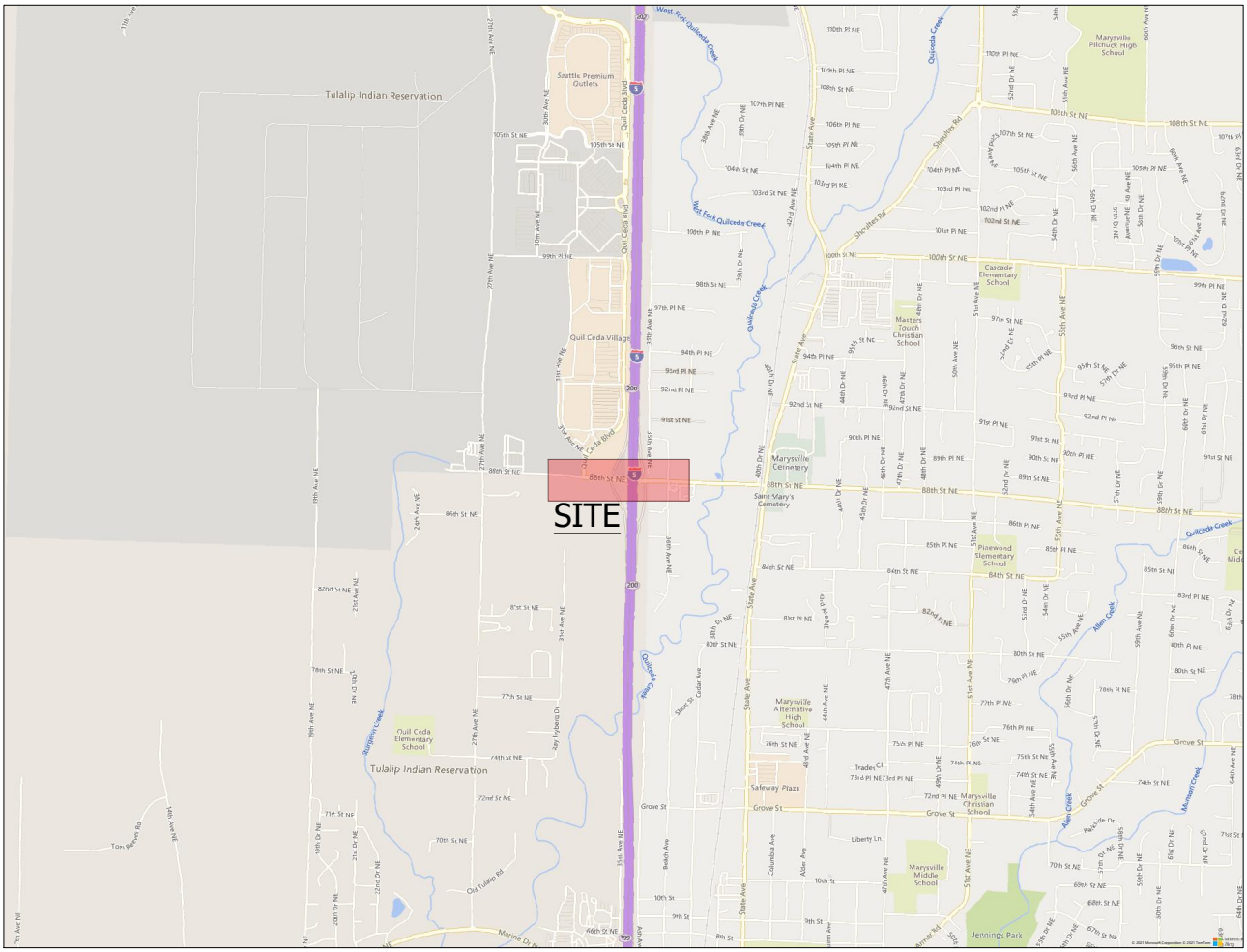
SCALE: 1" = 1000'

N



VICINITY MAP
88TH STREET NE
Scale: 1" = 3000'-0"

0 1500' 3000' 4500' 6000'
SCALE: 1" = 3000'

N

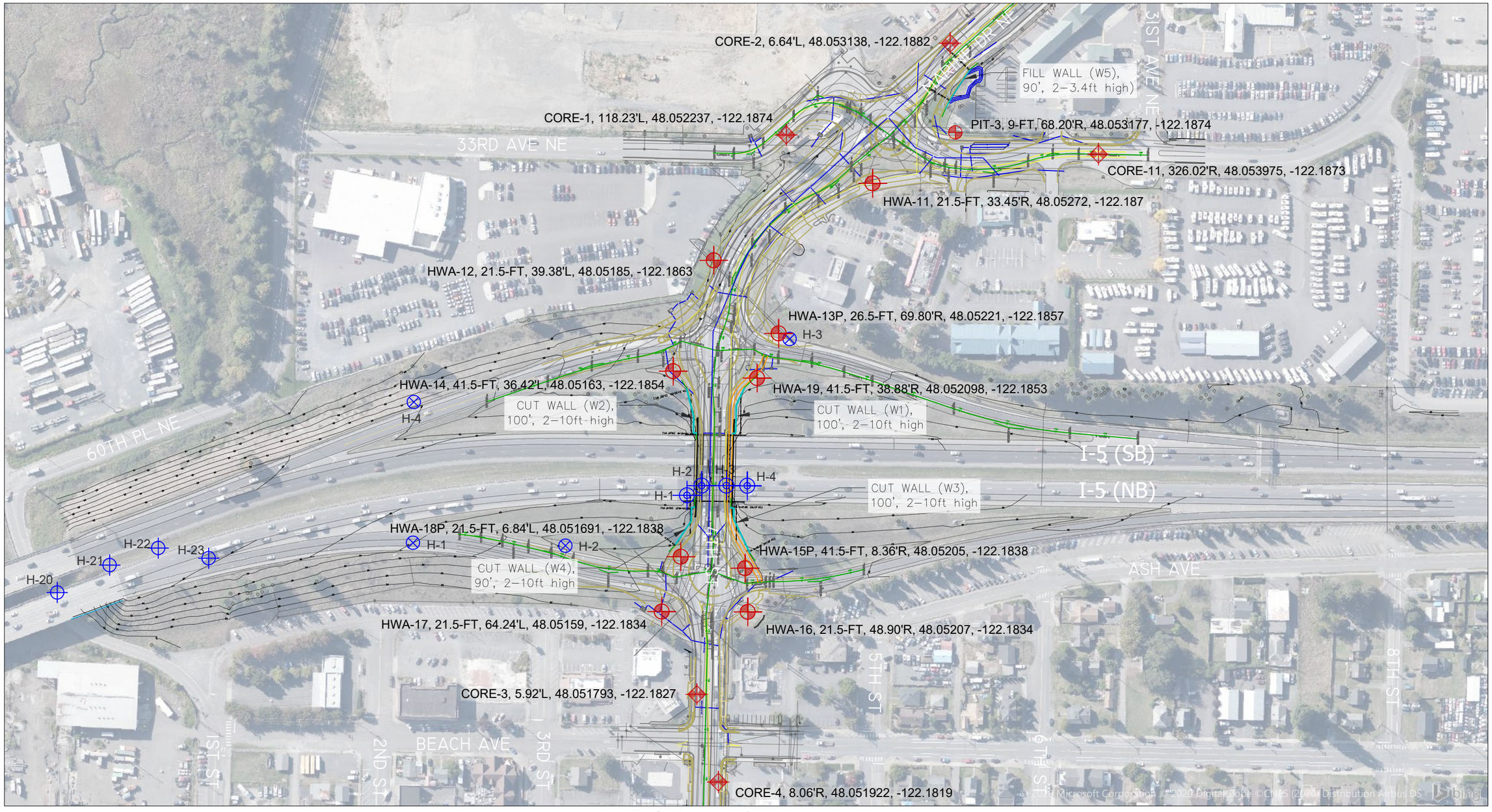
HWA GeoSciences Inc.
DBE/MWBE

SITE AND VICINITY MAP

I-5/4TH STREET AND 88TH STREET NE
CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

FIGURE NO.: 1B
DRAWN BY: CF
CHECK BY: SRB/SM
PROJECT # 2019-127-21

S:\2019 PROJECTS\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGES IMPROVEMENTS\CAD\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS (88TH ST NE).DWG <1B> Plotted: 8/9/2022 3:17 PM



4TH STREET NE & MARINE DR NE

Scale: 1" = 200'-0"

EXPLORATION LEGEND

HWA-11, 21.5-FT	BOREHOLE DESIGNATION AND APPROXIMATE LOCATION
H-1	HANDHOLE DESIGNATION AND APPROX. LOCATION (WSDOT, 1992)
H-20	HANDHOLE DESIGNATION AND APPROX. LOCATION (WSDOT, 1951)
H-1	HANDHOLE DESIGNATION AND APPROX. LOCATION (WSDOT, 1991)
CORE-1	PAVEMENT CORE DESIGNATION AND APPROX. LOCATION
PIT-3	SMALL-SCALE PITs DESIGNATION AND APPROX. LOCATION

EXPLORATION EXAMPLE

HWA-17, 21.5-FT, 64.24'L, 48.05159, -122.1834

- BORE NUMBER DESIGNATION
- BORE DEPTH
- DISTANCE FROM CENTERLINE
- LATITUDE
- LONGITUDE
- APPROXIMATE BORE LOCATION

N

0 100 200 300 400

SCALE: 1" = 200'

BASE MAP PROVIDED BY: BING AND PARAMETRIX 3.20.2023

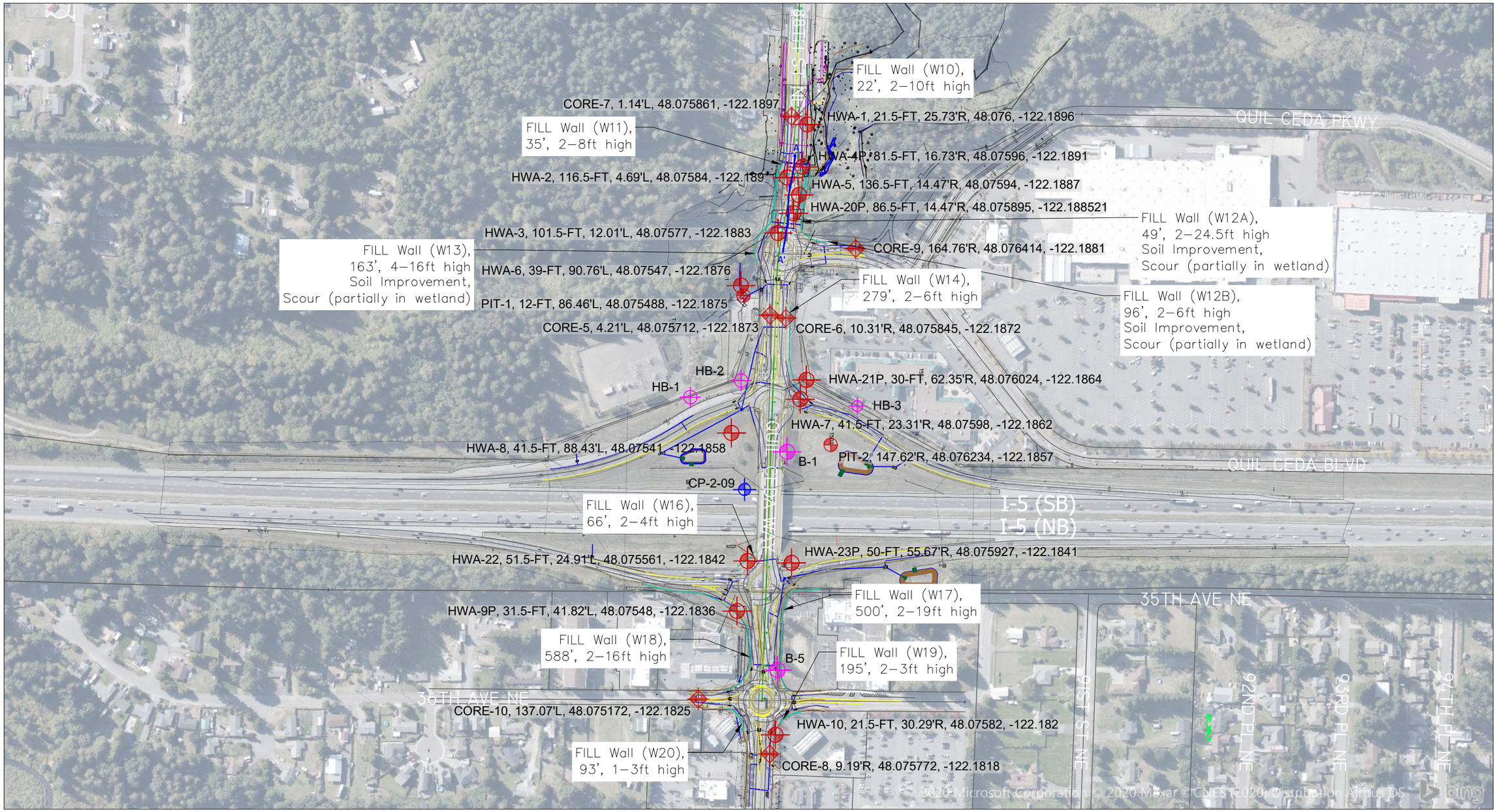
HWA GEOSCIENCES INC. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS MARYSVILLE, WASHINGTON

SITE & EXPLORATION PLAN

DRAWN BY: CF	FIGURE NO.: 2A
CHECK BY: SRB/SM	PROJECT NO.: 2019-127-21

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS (4TH ST).DWG <2A> Plotted: 9/12/2025 1:10 PM



EXPLORATION LEGEND

- HWA-1, 21.5-FT — BOREHOLE DESIGNATION AND APPROXIMATE LOCATION
- HB-1 — HANDHOLE DESIGNATION AND APPROX. LOCATION (SHANNON & WILSON, 1994)
- B-1 — BOREHOLE DESIGNATION AND APPROX. LOCATION (SHANNON & WILSON, 1994)
- CP-1 — BOREHOLE DESIGNATION AND APPROX. LOCATION (WSDOT, 2009)
- CORE-5 — PAVEMENT CORE DESIGNATION AND APPROX. LOCATION
- PIT-1 — SMALL-SCALE PITs DESIGNATION AND APPROX. LOCATION

BASE MAP PROVIDED BY: BING AND PARAMETRIX 3.20.2023

88TH STREET NE
Scale: 1" = 300'-0"

A —— A' CROSS SECTION

EXPLORATION EXAMPLE

HWA-17, 21.5-FT, 64.24'L, 48.05159, -122.1834
- APPROXIMATE BORE LOCATION
- LONGITUDE
- LATITUDE
- DISTANCE FROM CENTERLINE
- BORE DEPTH
- BORE NUMBER DESIGNATION

N

0 150 300 450 600
SCALE: 1" = 300'

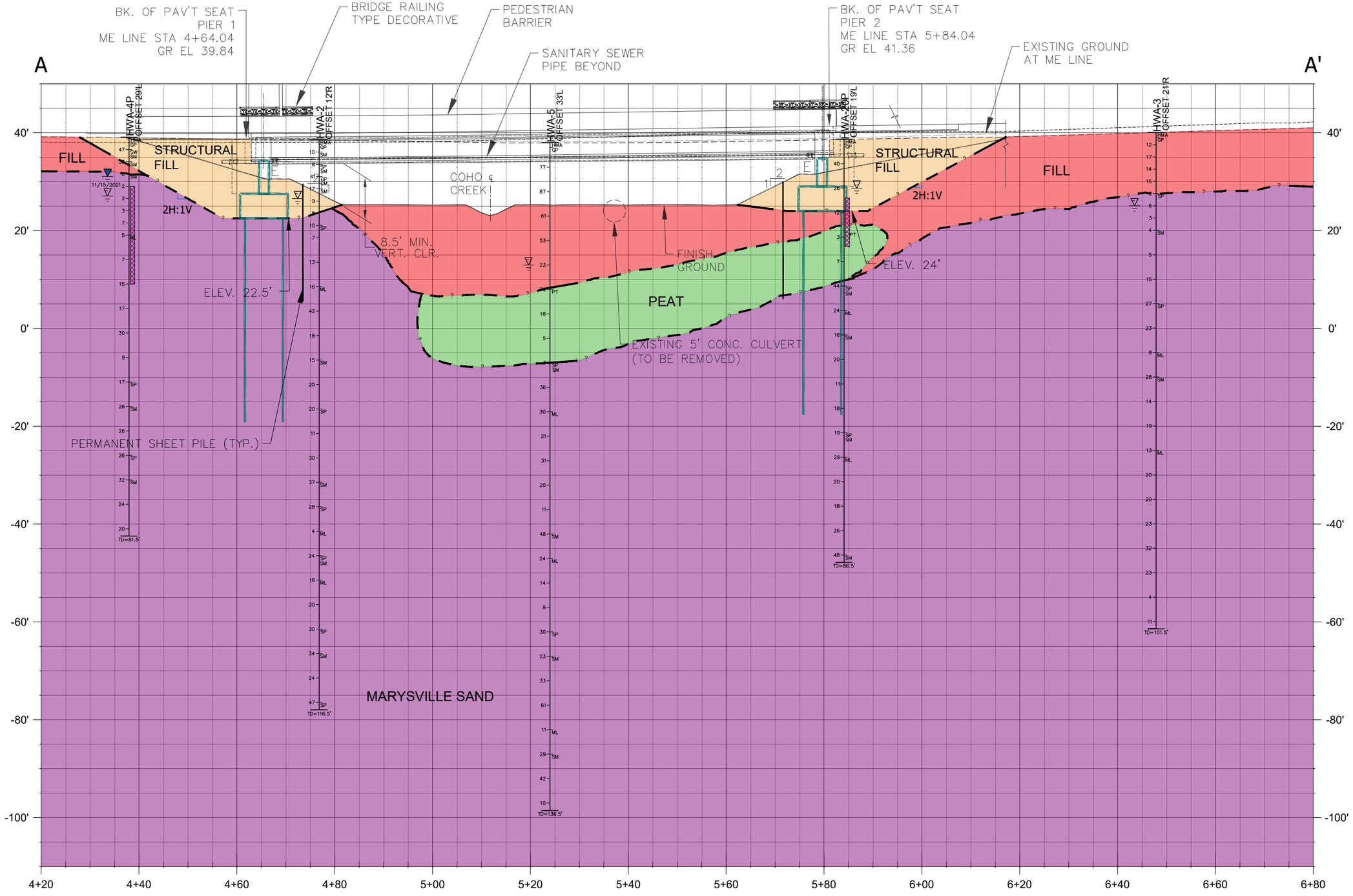
GEOSCIENCES INC. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS MARYSVILLE, WASHINGTON

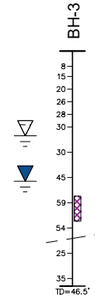
SITE & EXPLORATION PLAN

DRAWN BY:	FIGURE NO.:
CF	2B
CHECK BY:	PROJECT NO.:
SRB/SM	2019-127-21

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS (88TH ST NE).DWG <2B> Plotted: 9/12/2025 1:14 PM



BORE LEGEND



SOILS LEGEND

- STRUCTURAL FILL
- FILL
- PEAT
- MARYSVILLE SAND

0 10 20 30 40

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

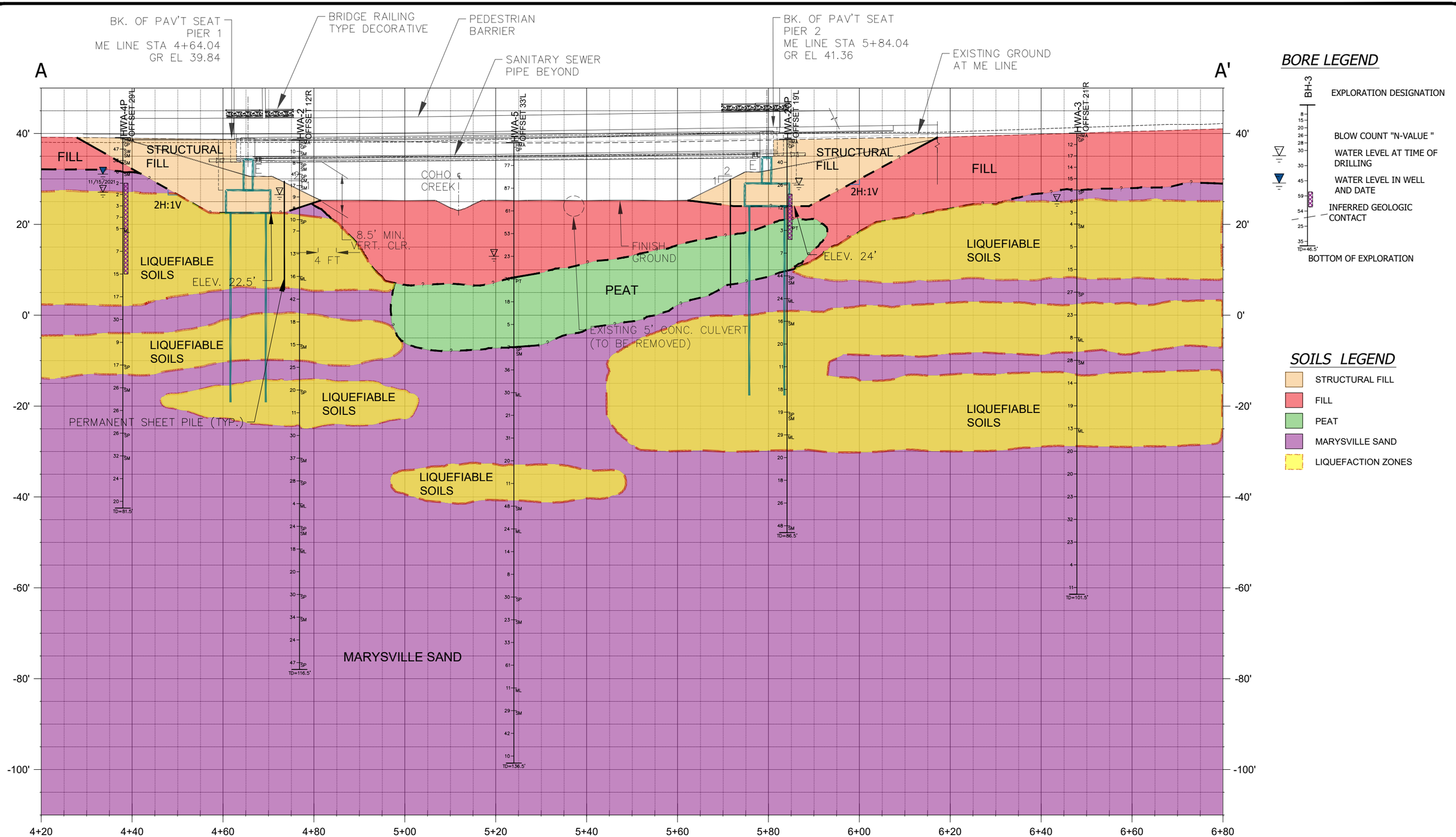
GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS MARYSVILLE, WASHINGTON

GEOLOGIC CROSS-SECTION A-A'

DRAWN BY:	FIGURE NO.:
CF	3
CHECK BY:	PROJECT NO.:
SRB/SM	2019-127-21

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS (88TH ST NE).DWG <3> Plotted: 9/11/2025 4:57 PM



BORE LEGEND

SOILS LEGEND

- STRUCTURAL FILL
- FILL
- PEAT
- MARYSVILLE SAND
- LIQUEFACTION ZONES

0 10 20 30 40

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

GEOSCIENCES INC.
DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE
CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

CROSS-SECTION A-A'
LIQUEFACTION ZONES

DRAWN BY:	FIGURE NO.:
CF	4
CHECK BY:	PROJECT NO.:
SRB/SM	2019-127-21

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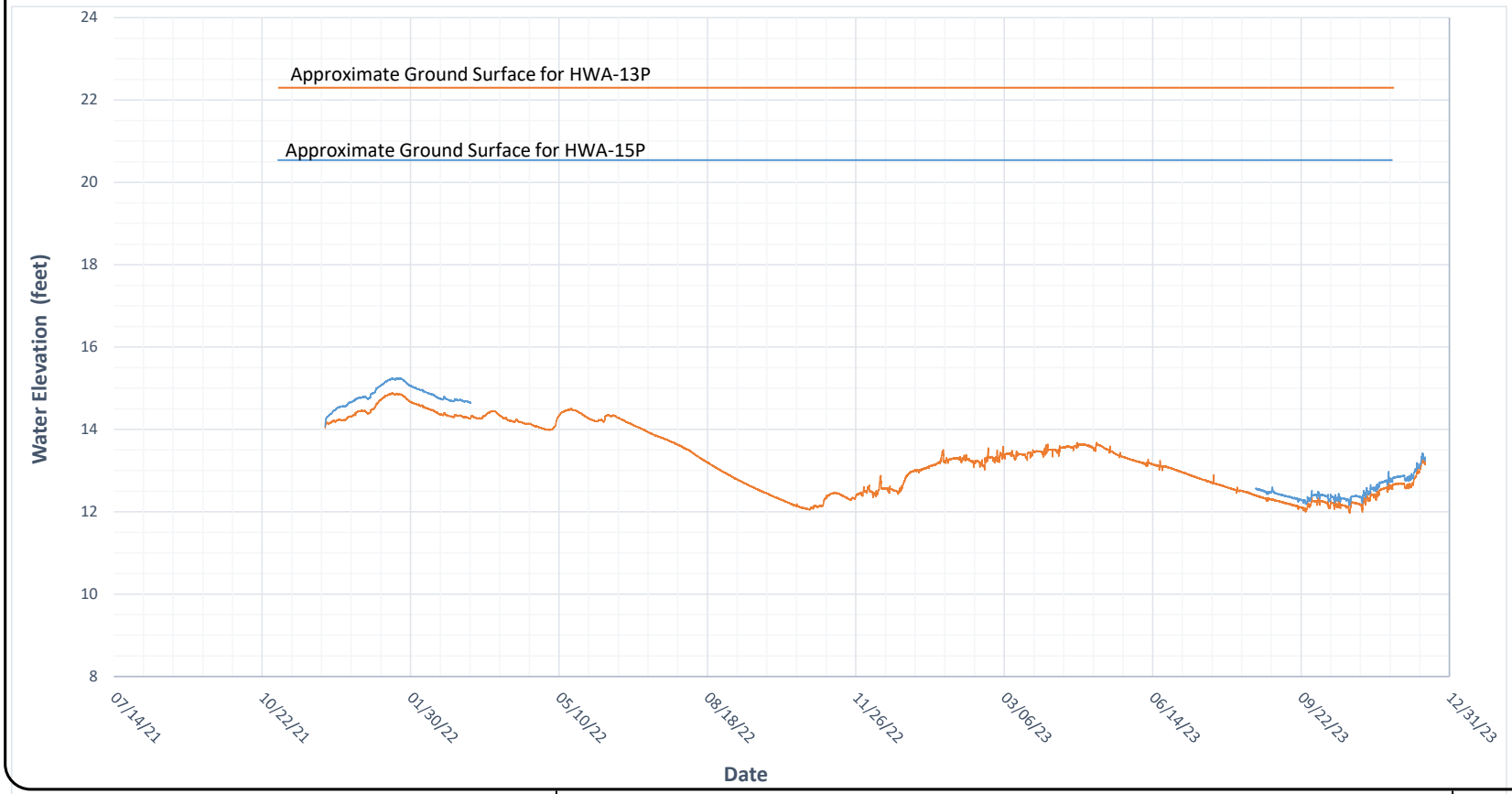
	Boring	Ground Elevation (ft)*	Min. Water Elevation (ft)	Max. Water Elevation (ft)	First Reading	Last Reading	Latitude	Longitude	Datum	Collector
	HWA-13P	22.0	12.0	14.9	11/8/2021	12/14/2023	48.0522490°	-122.185702°	NAD83 (NF)	L. Cressler
	HWA-15P	20.6	12.2	15.2	11/8/2021	12/14/2023	48.0520335°	-122.183774°	NAD83 (NF)	L. Cressler



HWA GeoSciences Inc. DBE/MWBE

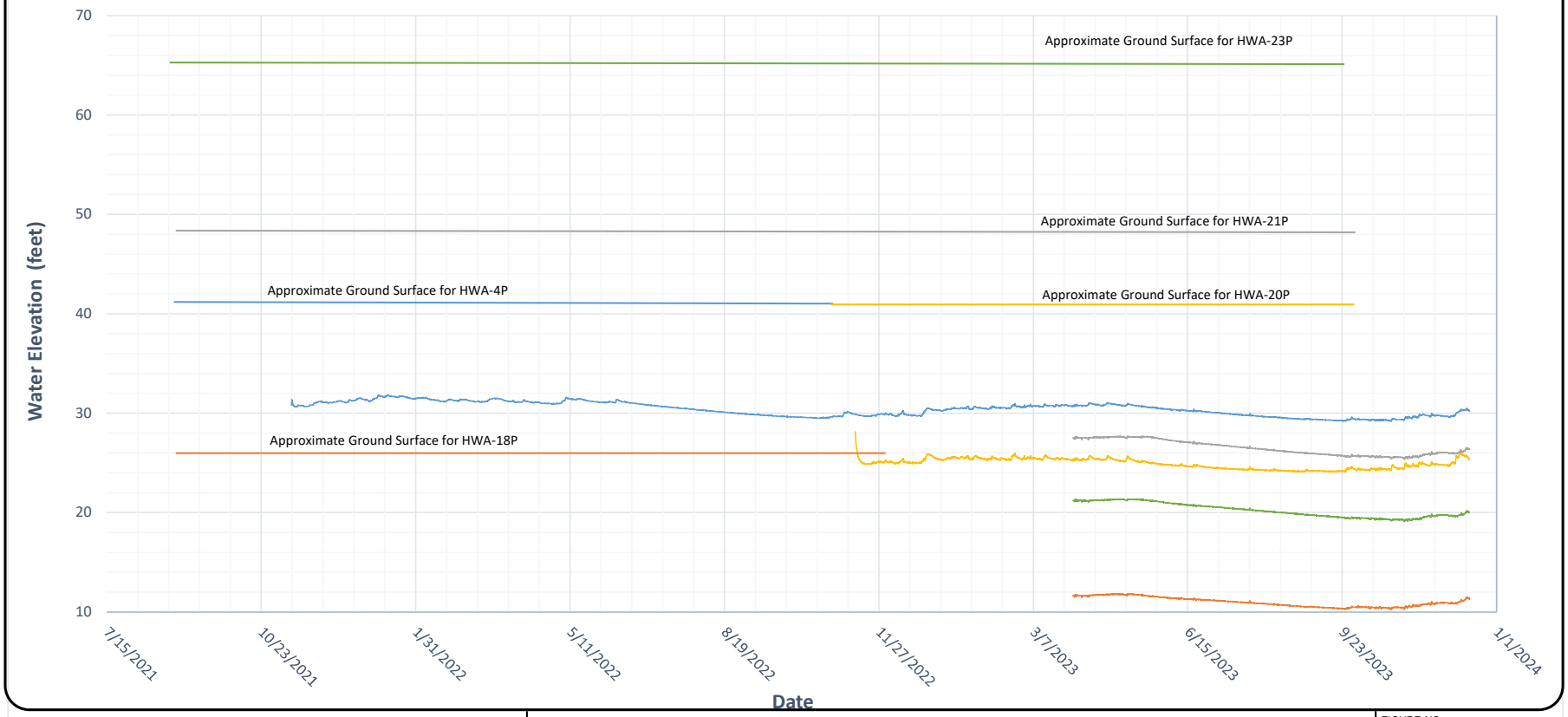
GROUNDWATER ELEVATION DATA (4TH STREET)

I-5/4th STREET AND 88th STREET NE
CORRIDOR IMPROVEMENTS
TULALIP, WASHINGTON

FIGURE NO.
5A

PROJECT NO.
2019-127-21

	Boring	Ground Elevation (ft)*	Min. Water Elevation (ft)	Max. Water Elevation (ft)	First Reading	Last Reading	Latitude	Longitude	Datum	Collector
	HWA-4P	39	29.2	31.8	11/8/2021	12/14/2023	48.075957°	-122.189174°	NAD83 (NF)	L. Cressler
	HWA-18P	23.4	10.3	11.8	4/1/2023	12/14/2023	48.051691°	-122.183853°	NAD83 (NF)	L. Cressler
	HWA-20P	38.8	24.1	28.1	11/11/2022	12/14/2023	48.075895°	-122.188521°	NAD83 (NF)	L. Cressler
	HWA-21P	46.4	25.4	27.7	4/1/2023	12/14/2023	48.076024°	-122.186467°	NAD83 (NF)	L. Cressler
	HWA-23P	65.5	19.9	22.2	4/1/2023	12/14/2023	48.075927°	-122.184194°	NAD83 (NF)	L. Cressler



HWA GeoSciences Inc. DBE/MWBE

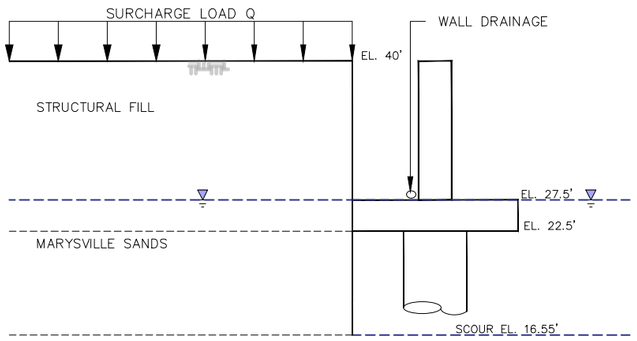
GROUNDWATER ELEVATION DATA (88TH STREET)

I-5/4th STREET AND 88th STREET NE
CORRIDOR IMPROVEMENTS
TULALIP, WASHINGTON

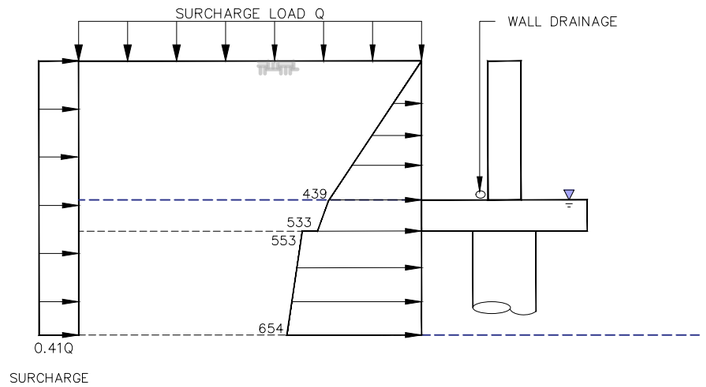
FIGURE NO. 5B

PROJECT NO. 2019-127-21

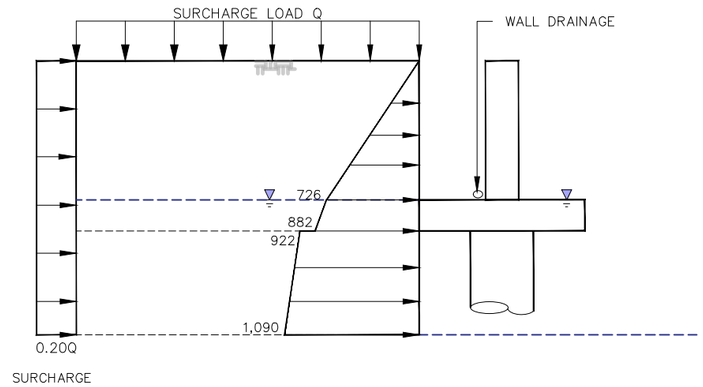
COHO CREEK BRIDGE WESTERN ABUTMENT



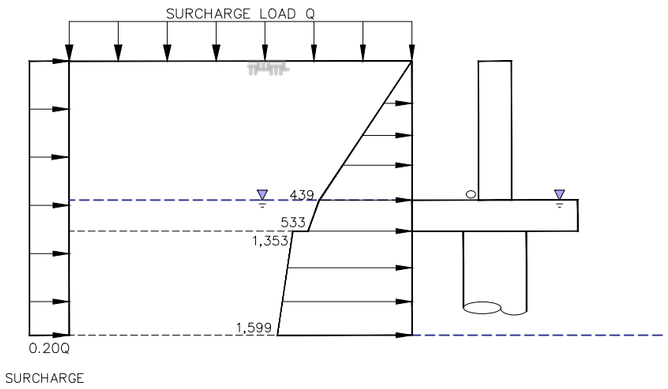
DESIGN PROFILE



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (PSEUDOSTATIC)



EXTREME (EQ) LIMIT STATE (POST-SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on at-rest earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All earth pressures assume a flat back slope.
5. All earth pressures acting on the retained portion of the wall should be applied along the length of the abutment wall. Pressures on the shafts should be multiplied by two times the diameter of the shaft.
6. Surcharge load (Q) should be equal to the factored equipment and traffic live loads.

Extreme Limit State Design

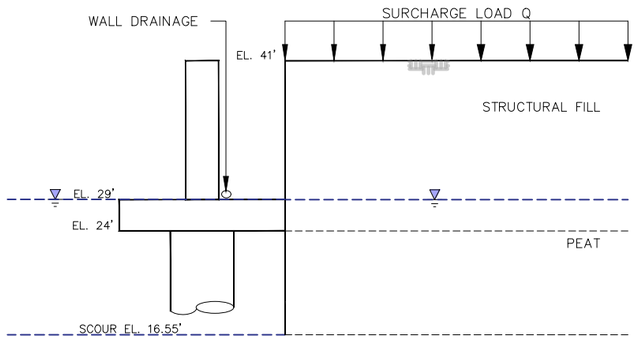
1. Lateral earth pressures presented under Extreme Limit State include active plus seismic on the retained side.

NOT TO SCALE

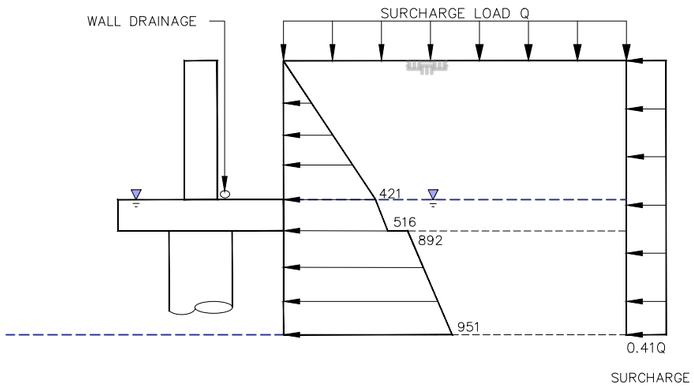
HWA GeoSciences Inc. DBE/MWBE	I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS MARYSVILLE, WASHINGTON	COHO CREEK BRIDGE ABUTMENT LATERAL EARTH PRESSURES	DRAWN BY: CF; FIGURE NO.: 6A; CHECK BY: AM/SRB; PROJECT NO.: 2019-127-21

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST (LEP)\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST (LEP).DWG <6A> Plotted: 9/11/2025 1:54 PM

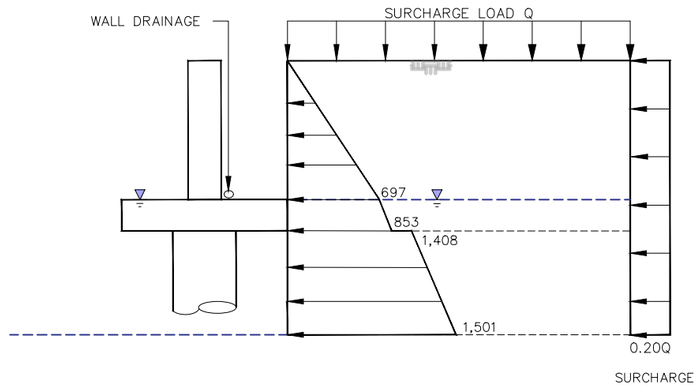
COHO CREEK BRIDGE EASTERN ABUTMENT



DESIGN PROFILE



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (PSEUDOSTATIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on at-rest earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All earth pressures assume a flat back slope.
5. All earth pressures acting on the retained portion of the wall should be applied along the length of the abutment wall. Pressures on the shafts should be multiplied by two times the diameter of the shaft.
6. Surcharge load (Q) should be equal to the factored equipment and traffic live loads.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State include active plus seismic on the retained side.

NOT TO SCALE

GeoSciences Inc. DBE/MWBE

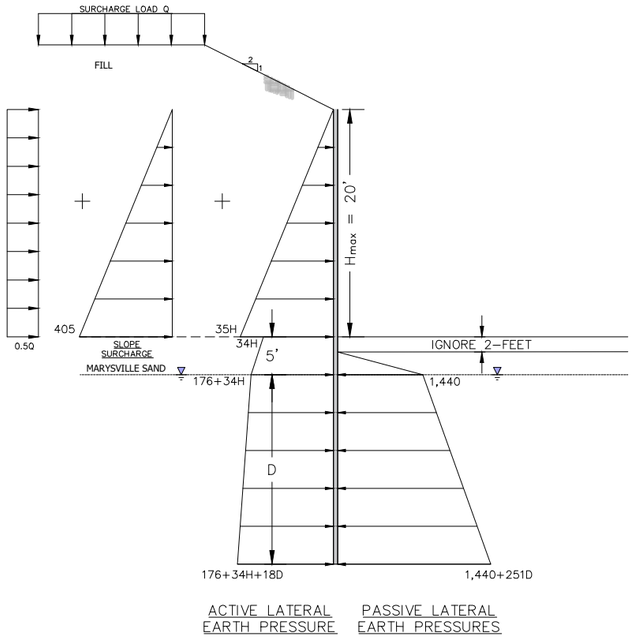
I-5/4TH STREET AND 88TH STREET NE
CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

COHO CREEK
BRIDGE ABUTMENT
LATERAL EARTH
PRESSURES

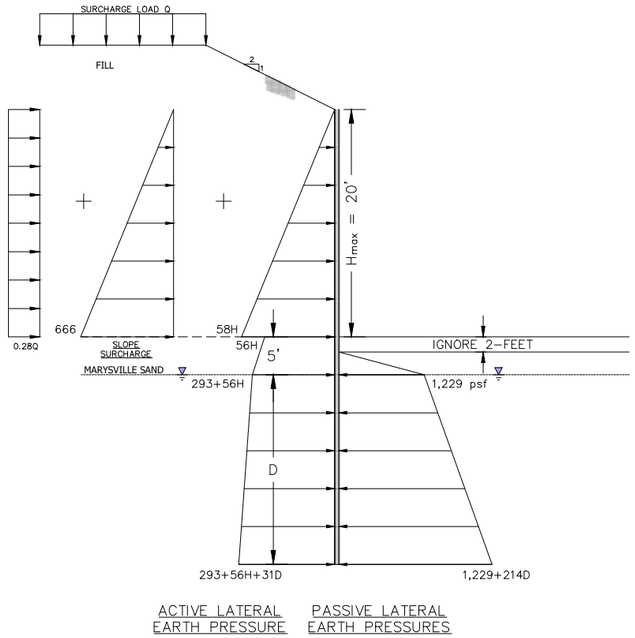
DRAWN BY:	FIGURE NO.:
CF	6B
CHECK BY:	PROJECT NO.:
AM/SRB	2019-127-21

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST (LEP)\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST (LEP).DWG <6B> Plotted: 9/11/2025 1:55 PM

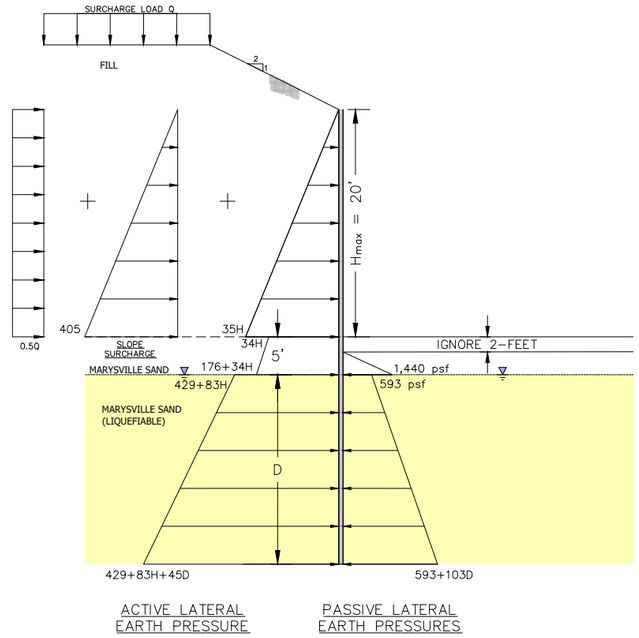
WALLS W1-W4



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)



EXTREME (EQ) LIMIT STATE (POST-SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All active earth pressures acting on the retained portion of the wall (above the base of the wall) should be applied across the pile spacing.
5. All active earth pressures acting below the retained portion of the wall should be applied over one pile shaft diameter.
6. Passive earth pressures, below the base of the wall, should be applied over 2 pile diameters, or the pile spacing, whichever is less.
7. Surcharge load should be equal to factored Dead and Live Load including equipment, traffic, etc.
8. "D" = embedment depth below design water table.

Strength and Service State Design

1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

Post Liquefaction Loading Conditions

1. The liquefied zones in the post-liquefaction scenario are highlighted in yellow above.
2. Design assumes that post-liquefaction conditions can be decoupled from the pseudostatic analysis.

NOT TO SCALE

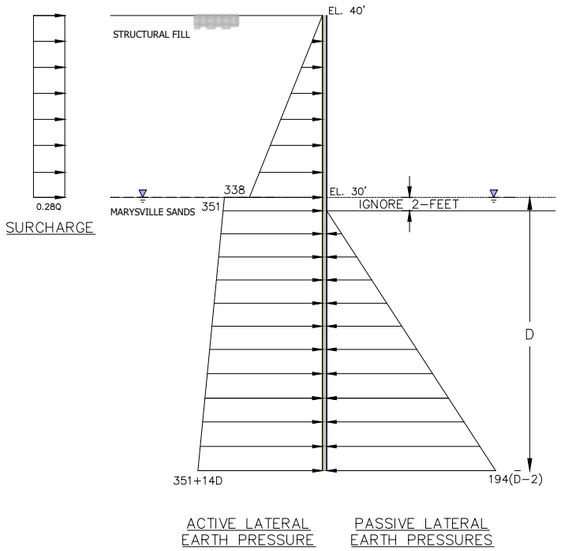
HWA GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

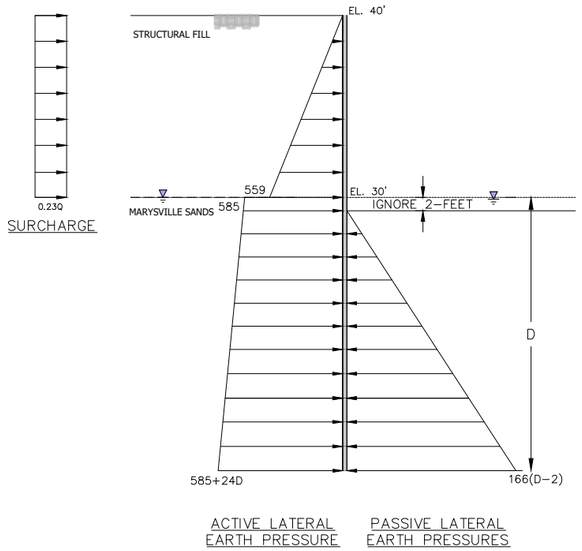
LATERAL EARTH PRESSURE - SOLDIER PILE
WALLS 1 THROUGH 4

DRAWN BY:	FIGURE NO.:
CF	7A
CHECK BY:	PROJECT NO.:
BOB/SRB	2019-127-21

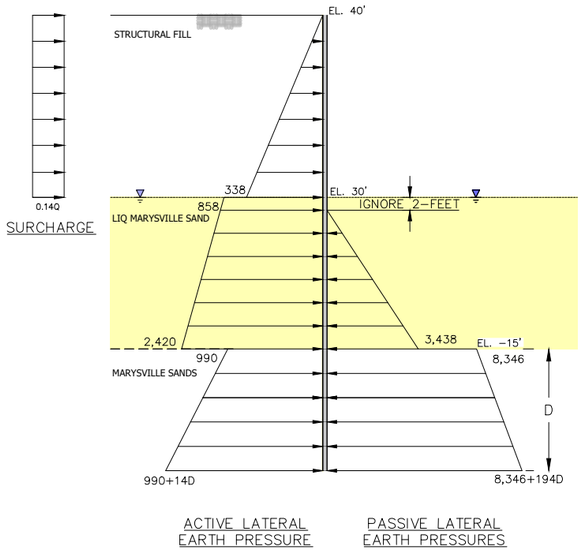
SOLDIER PILE WALL 10



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)



EXTREME (EQ) LIMIT STATE (POST-SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All earth pressures assume a flat back slope.
5. All active earth pressures acting on the retained portion of the wall (above the base of the wall) should be applied across the pile spacing.
6. All active earth pressures acting below the retained portion of the wall should be applied over one pile shaft diameter.
7. Passive earth pressures, below the base of the wall, should be applied over 2 pile diameters, or the pile spacing, whichever is less.
8. Surcharge load should be equal to factored Dead and Live Load including equipment, traffic, etc.
9. "D" = embedment depth.

Strength and Service State Design

1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

Post Liquefaction Loading Conditions

1. The liquefied zones in the post-liquefaction scenario are highlighted in yellow above.
2. Design assumes that post-liquefaction conditions can be decoupled from the pseudostatic analysis.
3. "Dz" = embedment depth below elevation -15 feet.

NOT TO SCALE

HWA GeoSciences Inc. DBE/MWBE

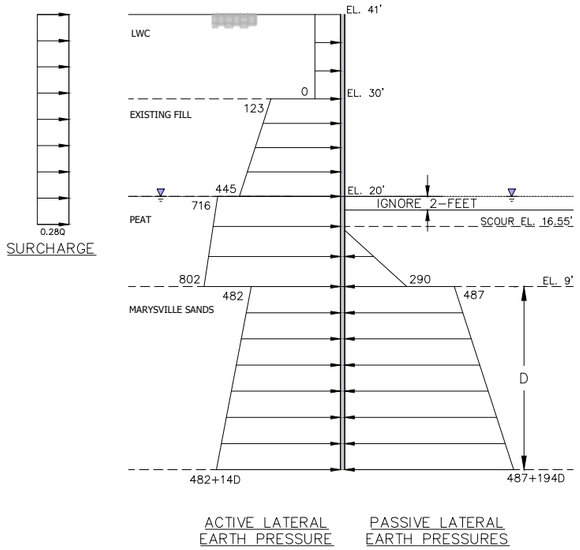
I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

LATERAL EARTH PRESSURE - SOLDIER PILE WALL 10

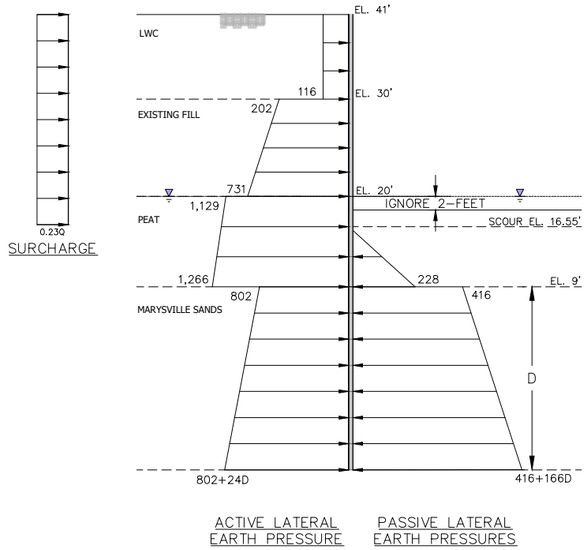
DRAWN BY:	FIGURE NO.:
CF	7B
CHECK BY:	PROJECT NO.:
AM/SRB	2019-127-21

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST (LEP)\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST (LEP).DWG <7B> Plotted: 6/17/2026 2:54 PM

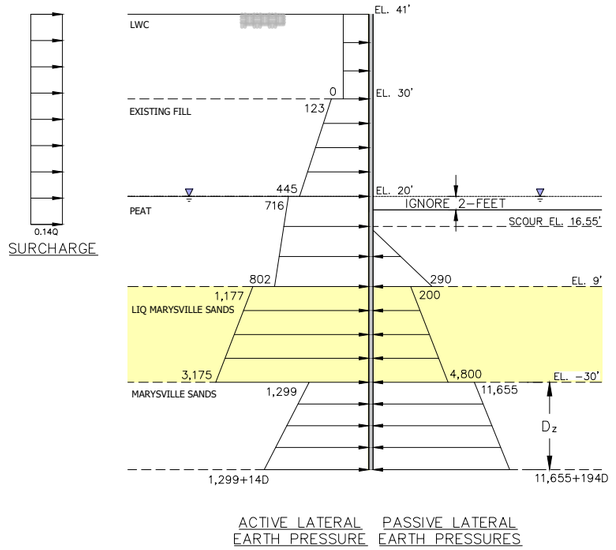
SOLDIER PILE WALL 12A



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)



EXTREME (EQ) LIMIT STATE (POST-SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All earth pressures assume a flat back slope.
5. All active earth pressures acting on the retained portion of the wall (above the base of the wall) should be applied across the pile spacing.
6. All active earth pressures acting below the retained portion of the wall should be applied over one pile shaft diameter.
7. Passive earth pressures, below the base of the wall, should be applied over 2 pile diameters, or the pile spacing, whichever is less.
8. Surcharge load should be equal to factored Dead and Live Load including equipment, traffic, etc.
9. "D" = embedment depth below elevation 9 feet.

Strength and Service State Design

1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

Post Liquefaction Loading Conditions

1. The liquefied zones in the post-liquefaction scenario are highlighted in yellow above.
2. Design assumes that post-liquefaction conditions can be decoupled from the pseudostatic analysis.
3. "Dz" = embedment depth below elevation -30 feet.

NOT TO SCALE

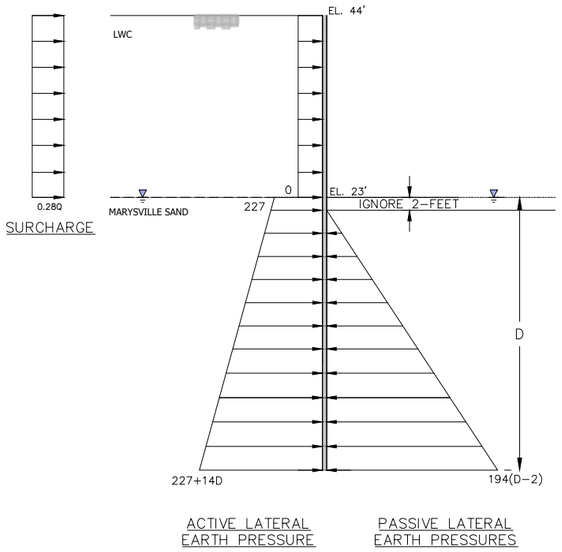
GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

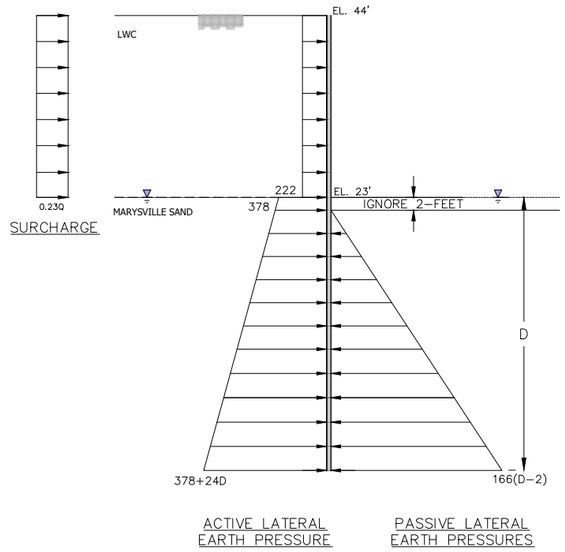
LATERAL EARTH PRESSURE - SOLDIER PILE WALL 12A

DRAWN BY:	FIGURE NO.:
CF	7C
CHECK BY:	PROJECT NO.:
AM/SRB	2019-127-21

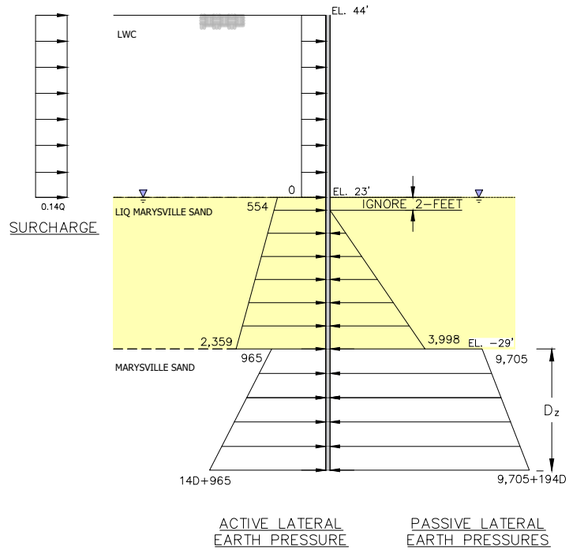
SOLDIER PILE WALL 13



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)



EXTREME (EQ) LIMIT STATE (POST-SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All earth pressures assume a flat back slope.
5. All active earth pressures acting on the retained portion of the wall (above the base of the wall) should be applied across the pile spacing.
6. All active earth pressures acting below the retained portion of the wall should be applied over one pile shaft diameter.
7. Passive earth pressures, below the base of the wall, should be applied over 2 pile diameters, or the pile spacing, whichever is less.
8. Surcharge load should be equal to factored Dead and Live Load including equipment, traffic, etc.
9. "D" = embedment depth.

Strength and Service State Design

1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

Post Liquefaction Loading Conditions

1. The liquefied zones in the post-liquefaction scenario are highlighted in yellow above.
2. Design assumes that post-liquefaction conditions can be decoupled from the pseudostatic analysis.
3. "Dz" = embedment depth below elevation -29 feet.

NOT TO SCALE

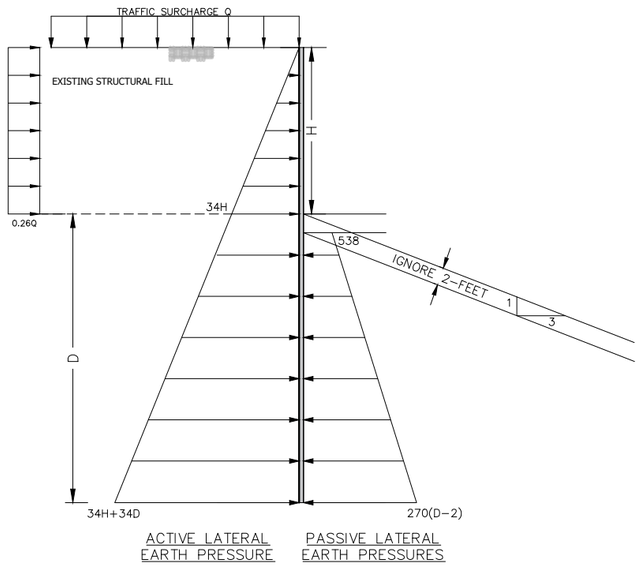
WA GEOSCIENCES INC. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

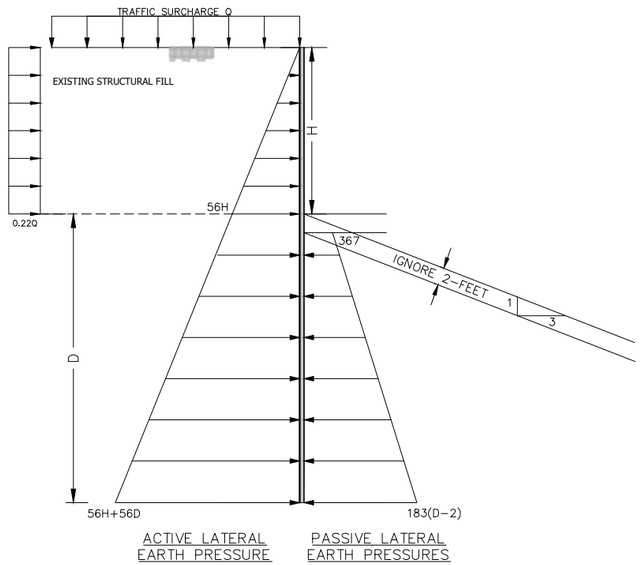
LATERAL EARTH PRESSURE - SOLDIER PILE WALL 13

DRAWN BY:	FIGURE NO.:
CF	7D
CHECK BY:	PROJECT NO.:
AM/SRB	2019-127-21

SOLDIER PILE WALL 16



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All earth pressures assume a flat back slope.
5. All active earth pressures acting on the retained portion of the wall (above the base of the wall) should be applied across the pile spacing.
6. All active earth pressures acting below the retained portion of the wall should be applied over one pile shaft diameter.
7. Passive earth pressures, below the base of the wall, should be applied over 2 pile diameters, or the pile spacing, whichever is less.
8. Surcharge load should be equal to factored Dead and Live Load including equipment, traffic, etc.
9. "D" = embedment depth.

Strength and Service State Design

1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

NOT TO SCALE

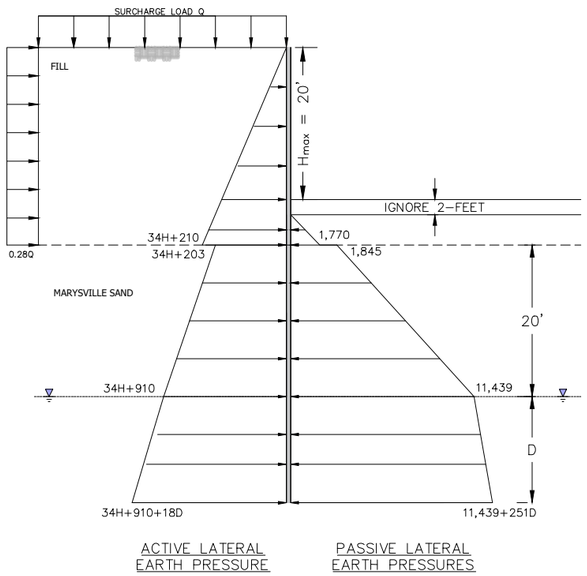
HWA GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

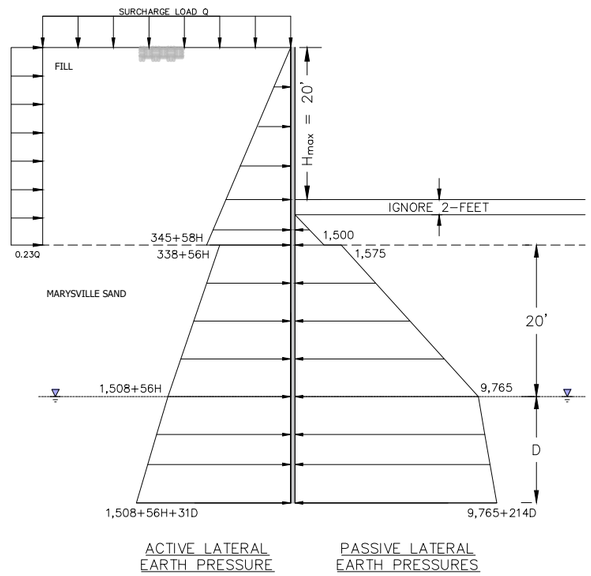
LATERAL EARTH PRESSURE
SOLDIER PILE WALL 16

DRAWN BY:	FIGURE NO.:
CF	7E
CHECK BY:	PROJECT NO.:
SM/SRB	2019-127-21

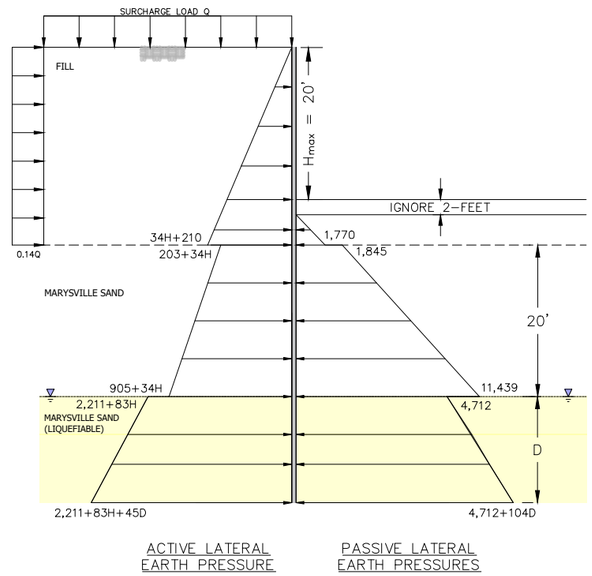
SOLDIER PILE WALL 17



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)



EXTREME (EQ) LIMIT STATE (POST-SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All earth pressures assume a flat back slope.
5. All active earth pressures acting on the retained portion of the wall (above the base of the wall) should be applied across the pile spacing.
6. All active earth pressures acting below the retained portion of the wall should be applied over one pile shaft diameter.
7. Passive earth pressures, below the base of the wall, should be applied over 2 pile diameters, or the pile spacing, whichever is less.
8. Surcharge load should be equal to factored Dead and Live Load including equipment, traffic, etc.
9. "D" = embedment depth below the design water table.

Strength and Service State Design

1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

Post Liquefaction Loading Conditions

1. The liquefied zones in the post-liquefaction scenario are highlighted in yellow above.
2. Design assumes that post-liquefaction conditions can be decoupled from the pseudostatic analysis.

NOT TO SCALE

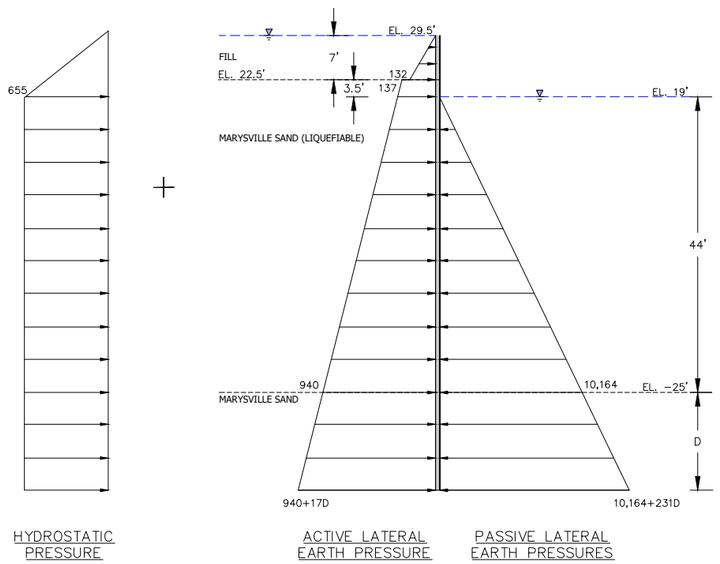
HWA GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

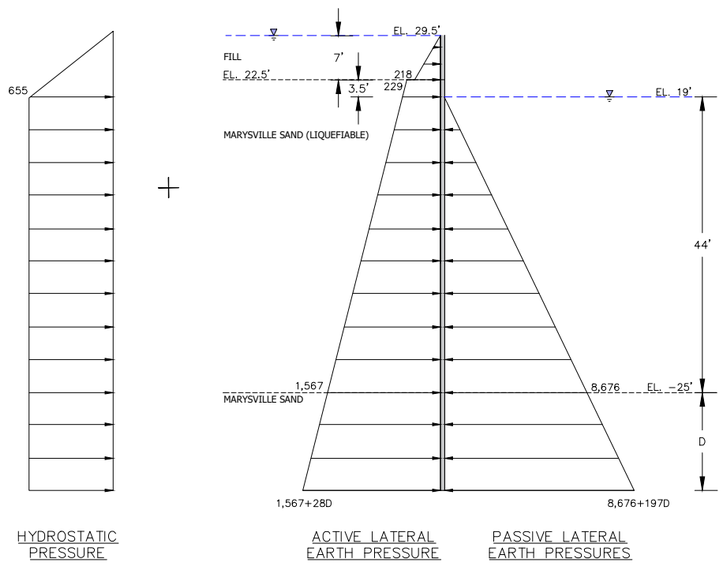
LATERAL EARTH PRESSURE - SOLDIER PILE WALL 17

DRAWN BY:	FIGURE NO.:
CF	7F
CHECK BY:	PROJECT NO.:
BOB/SRB	2019-127-21

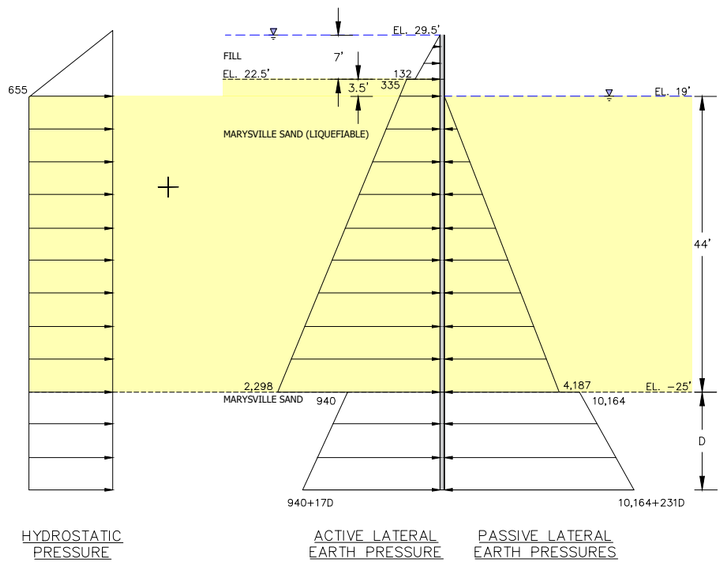
COHO CREEK SHEET PILE WALL - WEST ABUTMENT



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)



EXTREME (EQ) LIMIT STATE (POST-LIQUEFACTION)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All active and passive earth pressures for sheet piles shall act over the full length of the wall (e.g. the pile width and pile spacing both equal one).
5. For drilled piers behind sheet pile walls, lateral capacity in the direction of the sheet pile wall should be assumed to be zero above the depth of scour.
6. "D" = embedment depth below elevation -25 feet.

Strength and Service State Design

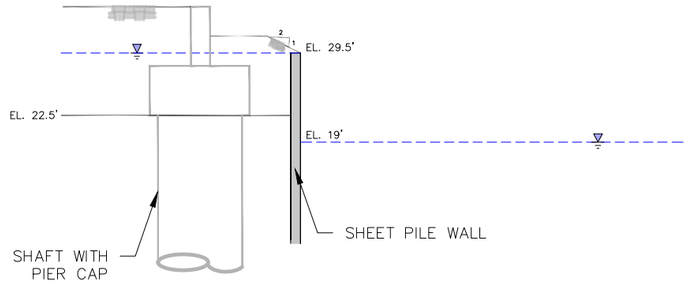
1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

Post Liquefaction Loading Conditions

1. The liquefied zones in the post-liquefaction scenario are highlighted in yellow above.
2. Design assumes that post-liquefaction conditions can be decoupled from the pseudostatic analysis.



ASSUMED PROFILE

NOT TO SCALE

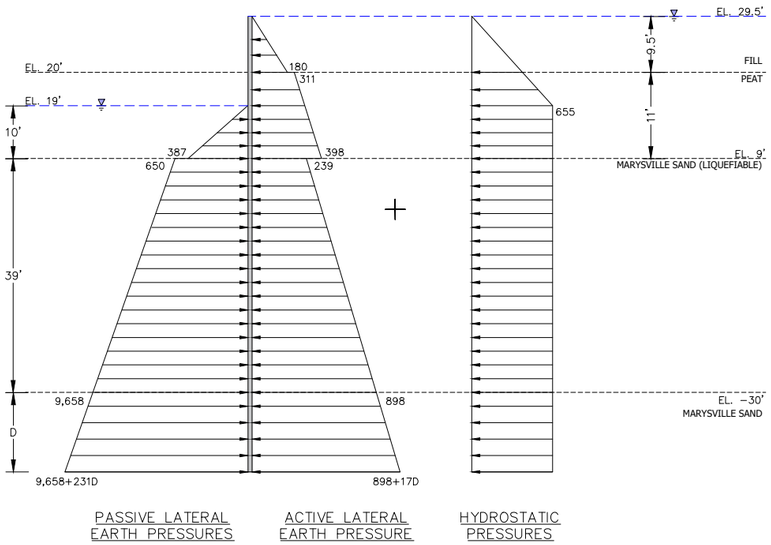
GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS MARYSVILLE, WASHINGTON

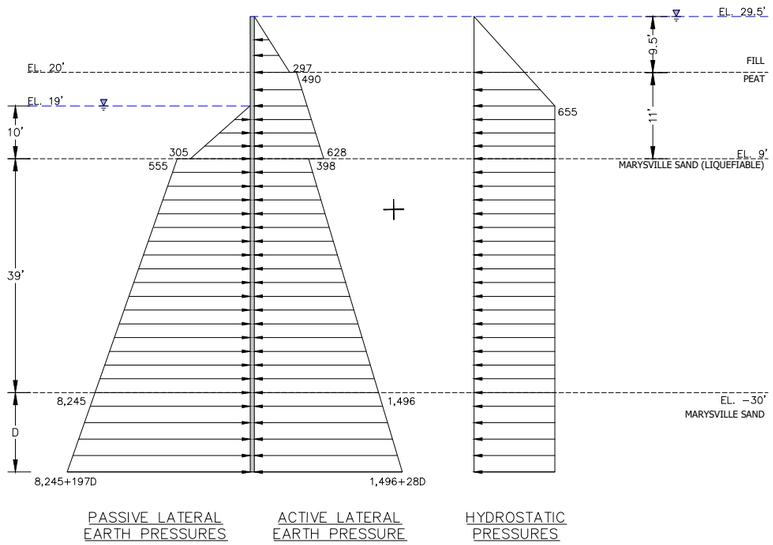
LATERAL EARTH PRESSURE - COHO CREEK BRIDGE SHEET PILE LATERAL EARTH PRESSURES

DRAWN BY:	FIGURE NO.:
CF	8A
CHECK BY:	PROJECT NO.:
BOB/SRB	2019-127-21

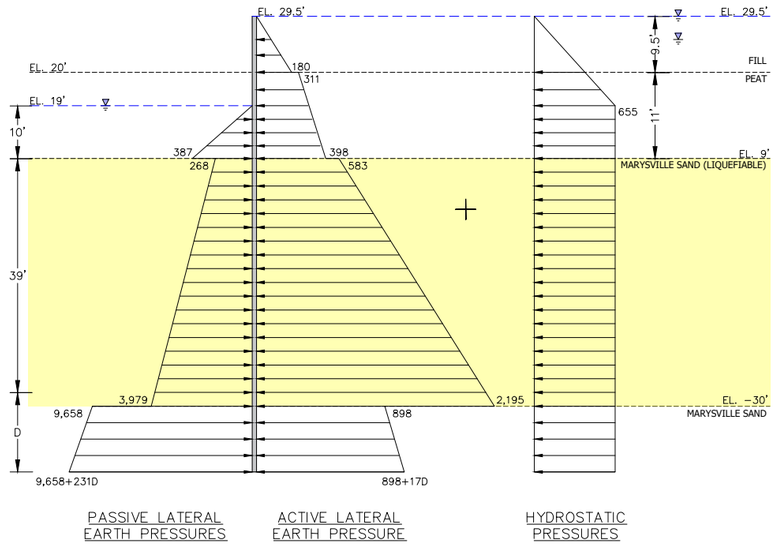
COHO CREEK SHEET PILE WALL - EAST ABUTMENT



STRENGTH & SERVICE LIMIT STATE (STATIC)



EXTREME (EQ) LIMIT STATE (SEISMIC)



EXTREME (EQ) LIMIT STATE (POST-SEISMIC)

General

1. All the pressures shown are in the units of pounds per square foot (psf). Wall heights and elevations are in units of feet.
2. Lateral earth pressures provided herein are based on active earth pressures and should be used for the design of the retaining walls where the wall is free to displace laterally at least 0.001H, where H is the retained height of the wall.
3. All the earth pressures provided are ultimate (unfactored), the appropriate load and resistance factors should be applied for each load state.
4. All active and passive earth pressures for sheet piles shall act over the full length of the wall (e.g. the pile width and pile spacing both equal one).
5. For drilled piers behind sheet pile walls, lateral capacity in the direction of the sheet pile wall should be assumed to be zero above the depth of scour.
6. "D" = embedment depth below elevation -30 feet.

Strength and Service State Design

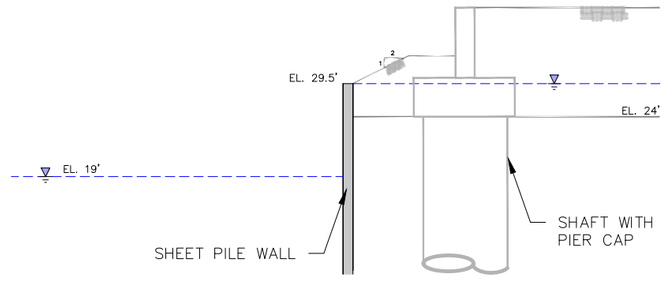
1. For strength limit state design, a resistance factor (ϕ) of 0.75 should be applied to the passive earth pressures shown.
2. For service limit state design, a resistance factor (ϕ) of 1.0 should be applied to the passive earth pressures shown.
3. Lateral earth pressures provided assume active conditions.

Extreme Limit State Design

1. Lateral earth pressures presented under Extreme Limit State (ELS) include active plus seismic on the retained side and passive plus seismic on the cut side of the wall.
2. Lateral earth pressures presented under ELS assume that active conditions will develop during the earthquake shaking event (i.e. the wall is capable of displacements of 1 to 2 inches). Therefore, Kh=0.5Kho=0.5As.

Post Liquefaction Loading Conditions

1. The liquefied zones in the post-liquefaction scenario are highlighted in yellow above.
2. Design assumes that post-liquefaction conditions can be decoupled from the pseudostatic analysis.



ASSUMED PROFILE

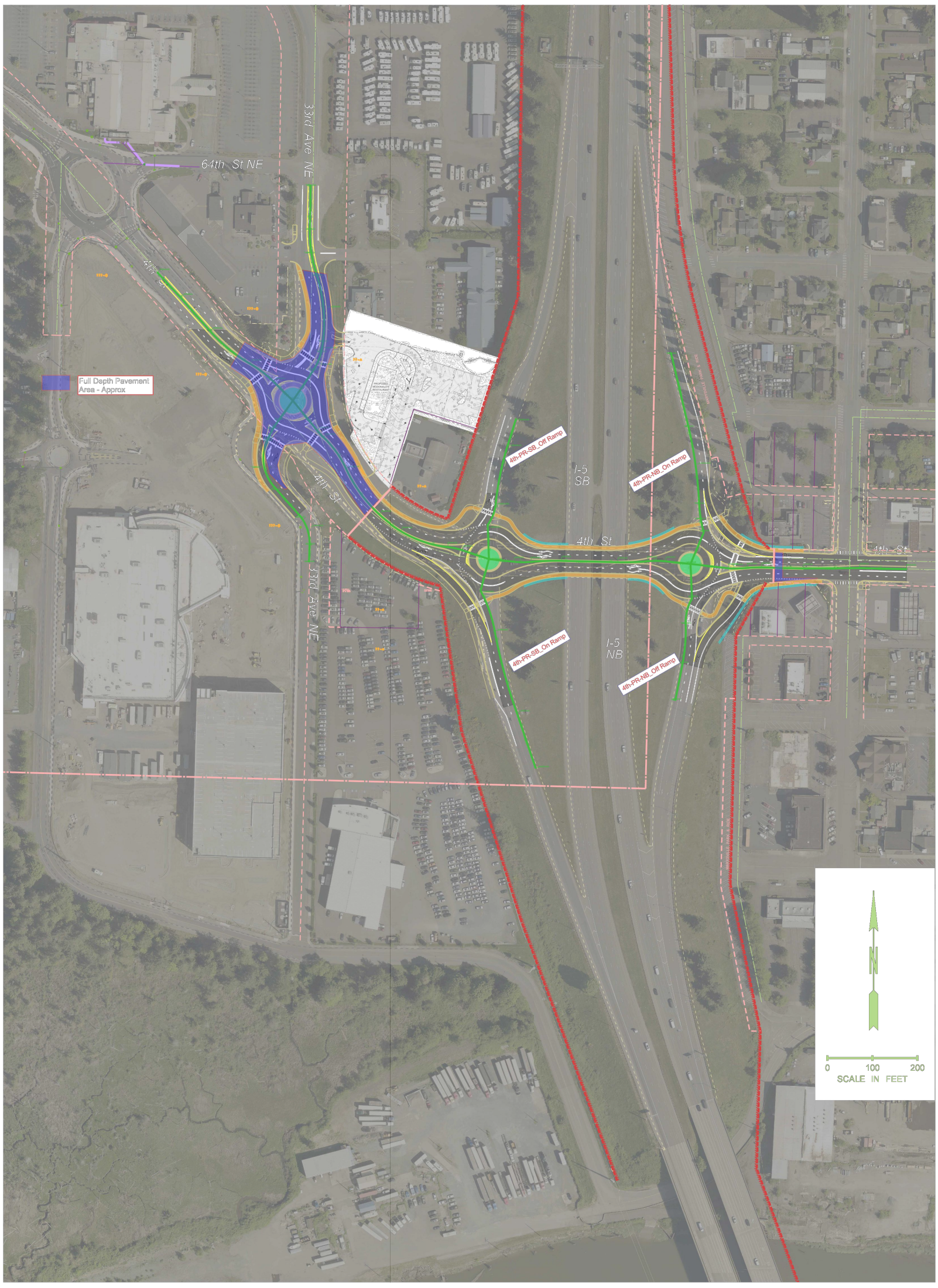
NOT TO SCALE

HWA GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS
MARYSVILLE, WASHINGTON

LATERAL EARTH PRESSURE - COHO CREEK BRIDGE SHEET PILE LATERAL EARTH PRESSURES

DRAWN BY:	FIGURE NO.:
CF	8B
CHECK BY:	PROJECT NO.:
BOB/SRB	2019-127-21



LEGEND

FULL DEPTH PAVEMENT AREA - APPROX

NOT TO SCALE

EXHIBIT PROVIDED BY: PARAMETRIX 8.8.2022

GeoSciences Inc. DBE/MWBE

I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS MARYSVILLE, WASHINGTON

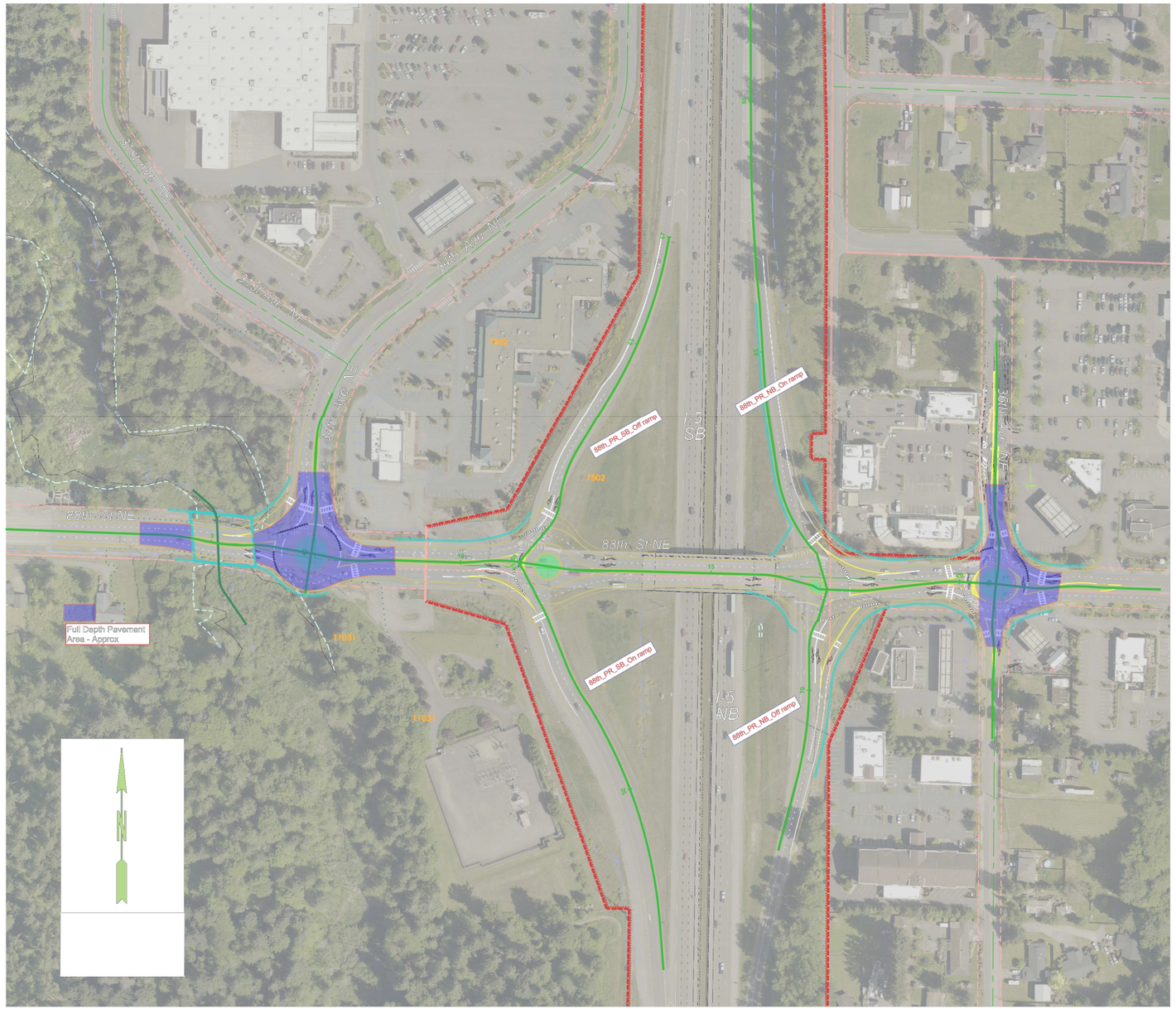
PAVEMENT ZONES 4TH STREET

DRAWN BY:	FIGURE NO.:
CF	9A
CHECK BY:	PROJECT NO.:
SRB/SM	2019-127-21

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS (4TH ST).DWG <9A> Plotted: 9/11/2025 5:54 PM

LEGEND

FULL DEPTH PAVEMENT
AREA - APPROX



NOT TO SCALE

GeoSciences Inc. DBE/MWBE	I-5/4TH STREET AND 88TH STREET NE CORRIDOR IMPROVEMENTS MARYSVILLE, WASHINGTON	PAVEMENT ZONES 88TH ST NE	DRAWN BY: CF	FIGURE NO.: 9B	
			CHECK BY: SB/RW	PROJECT NO.: 2019-127-21	

EXHIBIT PROVIDED BY: PARAMETRIX 8.8.2022

C:\USERS\CFRY\DESKTOP\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS\2019-127-21 I-5 TULALIP 4TH ST & 88TH ST NE INTERCHANGE IMPROVEMENTS (88TH ST NE).DWG <9B> Plotted: 9/11/2025 4:58 PM

APPENDIX A

FIELD EXPLORATIONS

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

ASTM SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS	
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)	GW	Well-graded GRAVEL
	More than 50% of Coarse Fraction Retained on No. 4 Sieve		GP	Poorly-graded GRAVEL
		Gravel with Fines (appreciable amount of fines)	GM	Silty GRAVEL
			GC	Clayey GRAVEL
	Sand and Sandy Soils	Clean Sand (little or no fines)	SW	Well-graded SAND
			SP	Poorly-graded SAND
	50% or More of Coarse Fraction Passing No. 4 Sieve	Sand with Fines (appreciable amount of fines)	SM	Silty SAND
			SC	Clayey SAND
Fine Grained Soils	Silt and Clay	Liquid Limit Less than 50%	ML	SILT
			CL	Lean CLAY
			OL	Organic SILT/Organic CLAY
50% or More Passing No. 200 Sieve Size	Silt and Clay	Liquid Limit 50% or More	MH	Elastic SILT
			CH	Fat CLAY
			OH	Organic SILT/Organic CLAY
Highly Organic Soils			PT	PEAT

TEST SYMBOLS

MC	Moisture Content
GS	Grain Size Distribution
%F	Percent Fines
CN	Consolidation
UC	Unconfined Compression
DS	Direct Shear
CD	Consolidated Drained Triaxial
CU	Consolidated Undrained Triaxial
UU	Unconsolidated Undrained Triaxial
OC	Organic Content
pH	pH of Soils
Res	Resistivity
PID	Photoionization Device Reading
AL	Atterberg Limits: PL Plastic Limit, LL Liquid Limit
M	Resilient Modulus
SL	Slake Test

SAMPLE TYPE SYMBOLS

- 2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
- Shelby Tube
- 3.0" OD Split Spoon with Brass Rings
- Small Bag Sample
- Large Bag (Bulk) Sample
- Core Run
- Non-standard Penetration Test (with split spoon sampler)

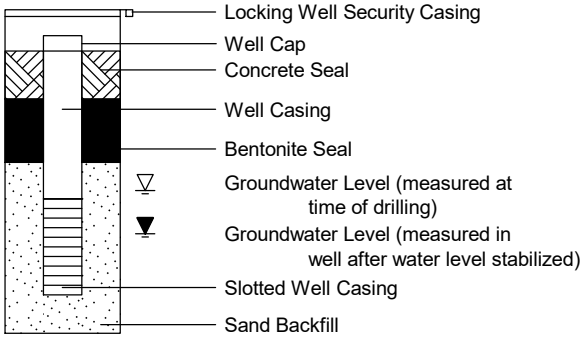
COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Clean	< 5%
Slightly (Clayey, Silty, Sandy)	5 - 12%
Clayey, Silty, Sandy, Gravelly	12 - 30%
Very (Clayey, Silty, Sandy, Gravelly)	30 - 50%

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

GROUNDWATER WELL COMPLETIONS



NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation in general accordance with ASTM D 2487 and ASTM D 2488. Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.

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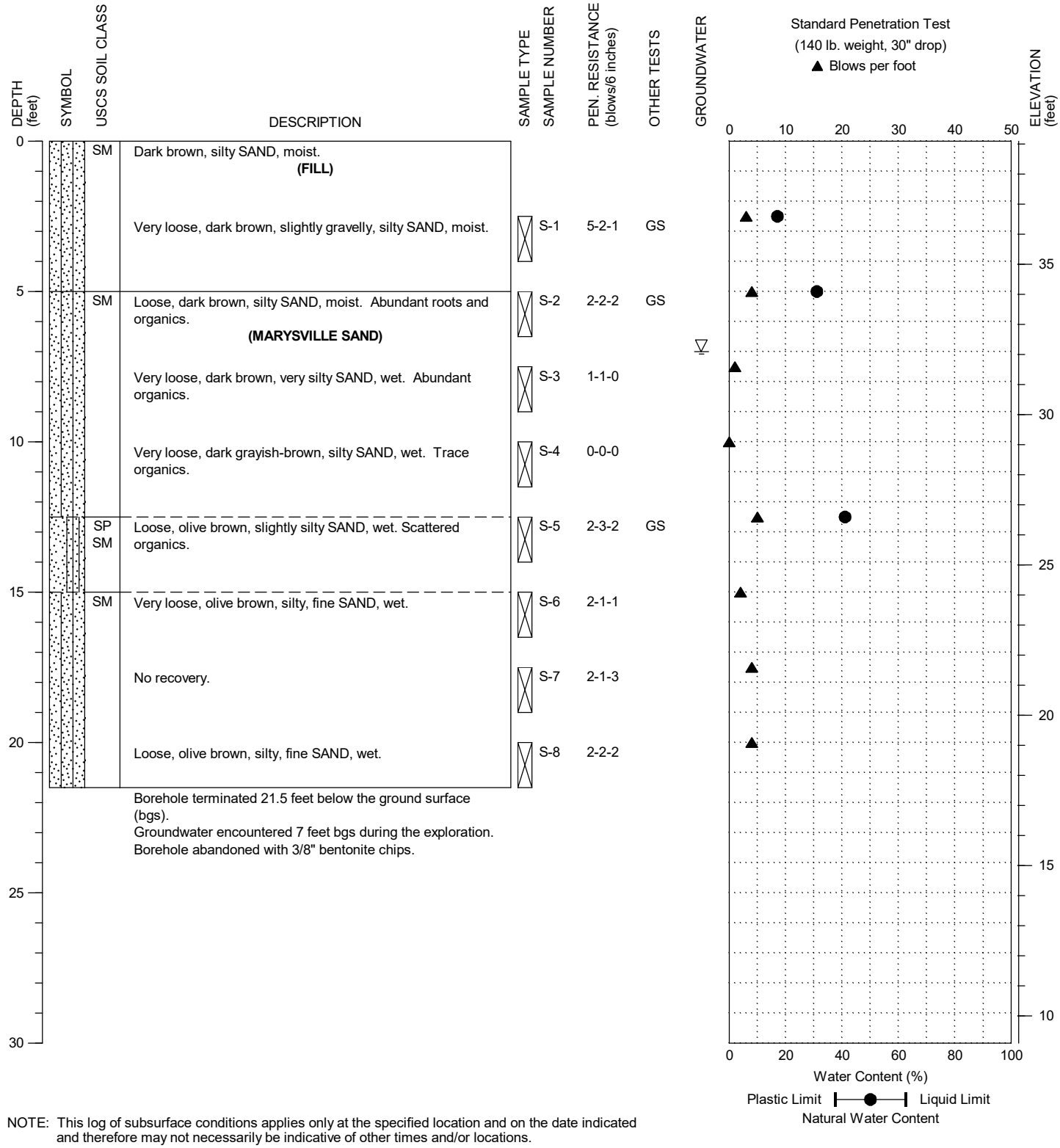
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

PROJECT NO.: 2019-127-21 FIGURE: A-1

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.07598618, -122.18959499, Datum: WGS84

DATE STARTED: 12/1/2021
DATE COMPLETED: 12/1/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 39.1 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

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I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 1

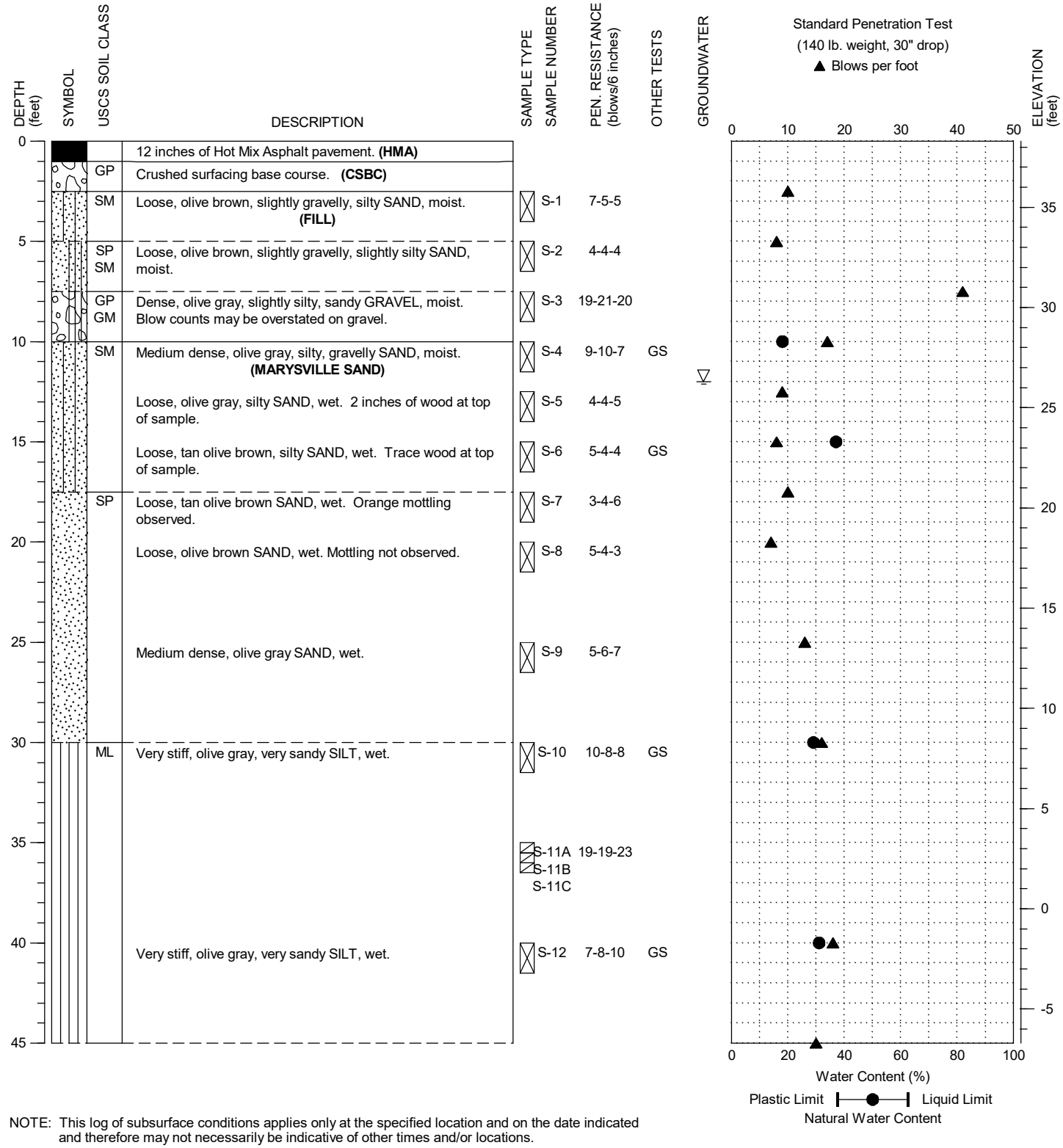
PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-2

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07582890, -122.18904900, Datum: WGS84

DATE STARTED: 11/8/2021
DATE COMPLETED: 11/8/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 38.3 ± feet



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I-5/4th Street and 88th Street NE
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Marysville, Washington

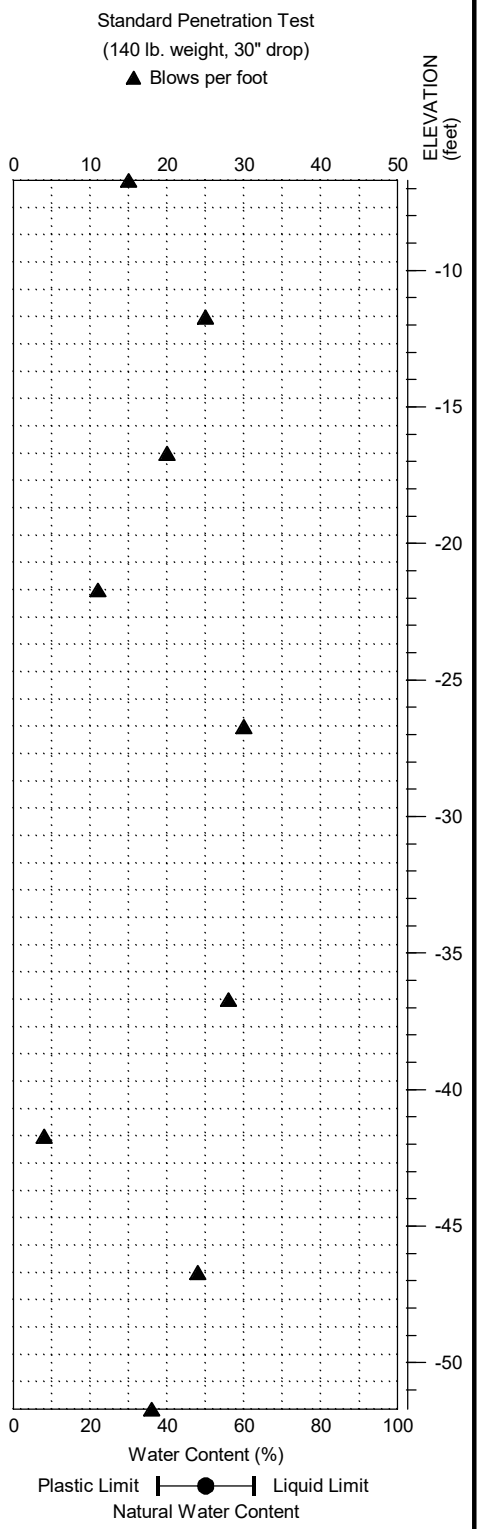
BORING:
HWA- 2

PROJECT NO.: 2019-127-21 FIGURE: A-3

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07582890, -122.18904900, Datum: WGS84

DATE STARTED: 11/8/2021
DATE COMPLETED: 11/8/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 38.3 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS	GROUNDWATER
45		SM	Medium dense, olive gray, very silty SAND, wet.		S-13	4-5-10		
50			Medium dense, olive gray, silty SAND, wet.		S-14	8-12-13		
55		SP	Medium dense, olive gray SAND, wet.		S-15	9-9-11		
60			No recovery.		S-16	6-6-5		
65			Dense, olive gray SAND, wet.		S-17	10-15-15		
70		SM	Medium dense, dark gray, silty SAND, wet.		S-18A S-18B S-18C	15-18-19	DS	
75		SP	Medium dense, olive gray SAND, wet.		S-19	13-12-16		
80		ML	Soft, olive gray, sandy SILT, wet.		S-20	4-2-2		
85		SP SM	Unsuccessful shelby tube sample. Ran SPT afterwards at same depth. Medium dense, olive gray, slightly silty SAND, wet.		S-21	2-10-14		
90								



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

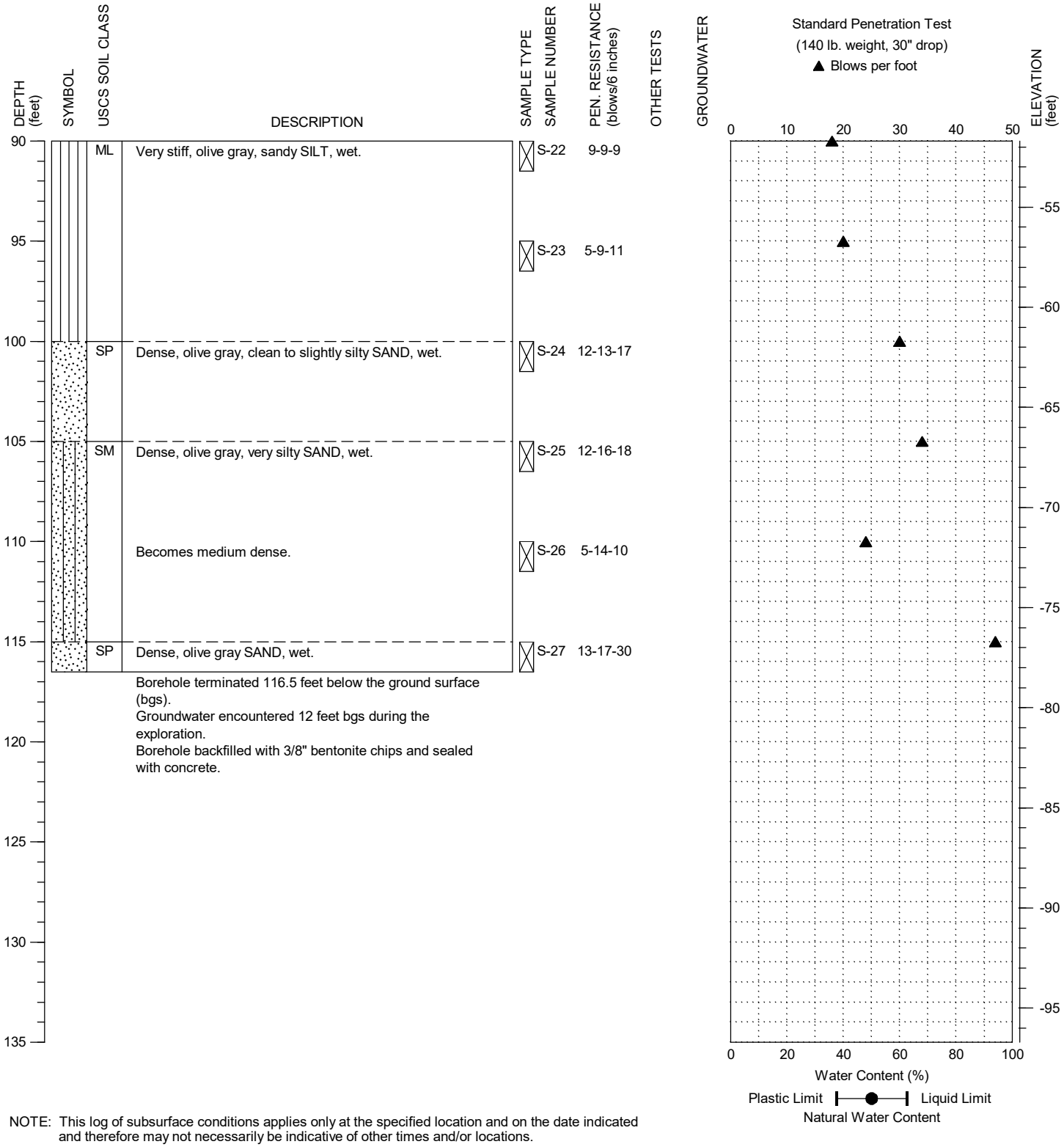
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 2

PROJECT NO.: 2019-127-21 FIGURE: A-3

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07582890, -122.18904900, Datum: WGS84

DATE STARTED: 11/8/2021
DATE COMPLETED: 11/8/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 38.3 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

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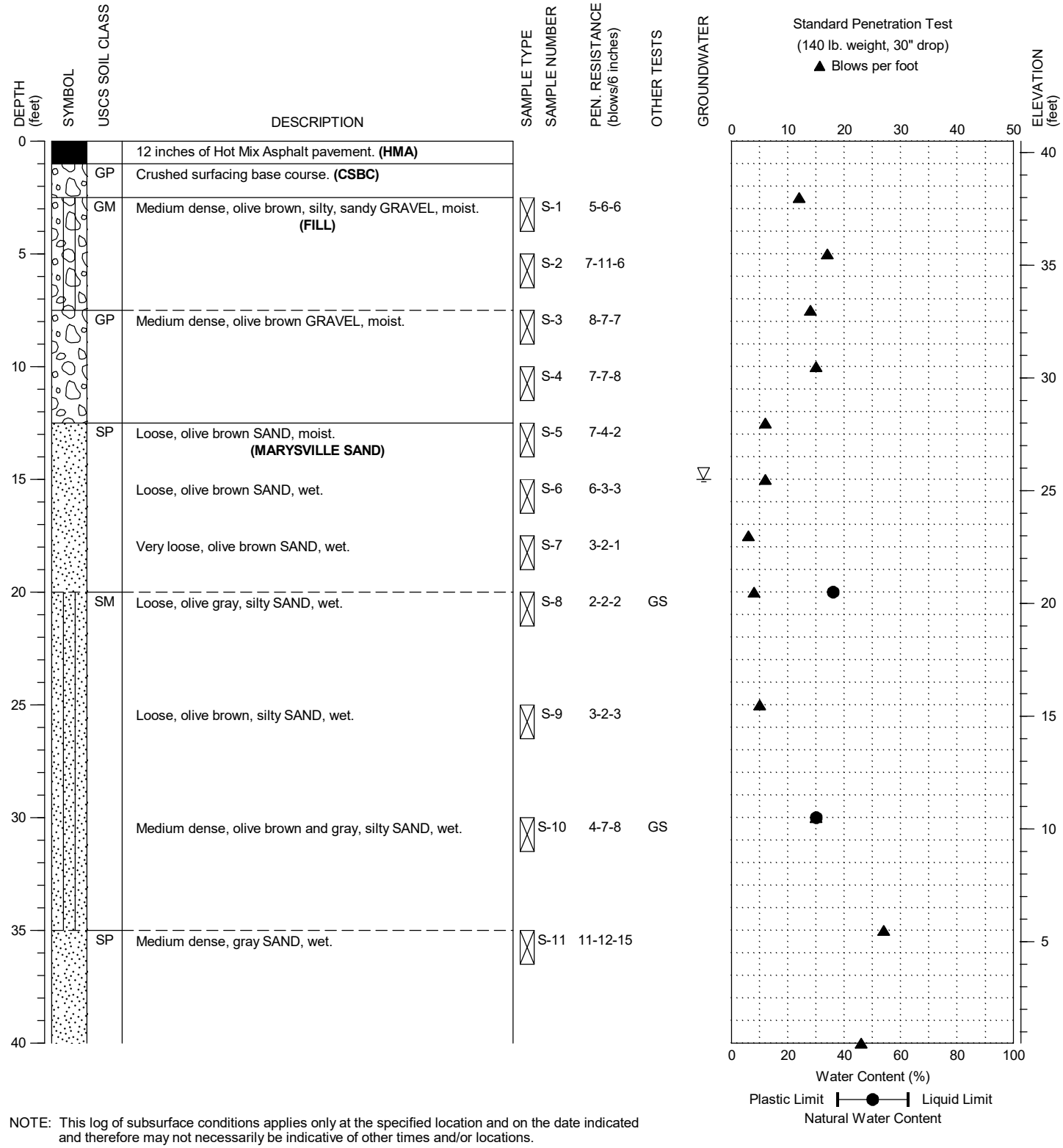
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 2

PROJECT NO.: 2019-127-21 FIGURE: A-3

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07574950, -122.18829205, Datum: WGS84

DATE STARTED: 11/9/2021
DATE COMPLETED: 11/9/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 40.5 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

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I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

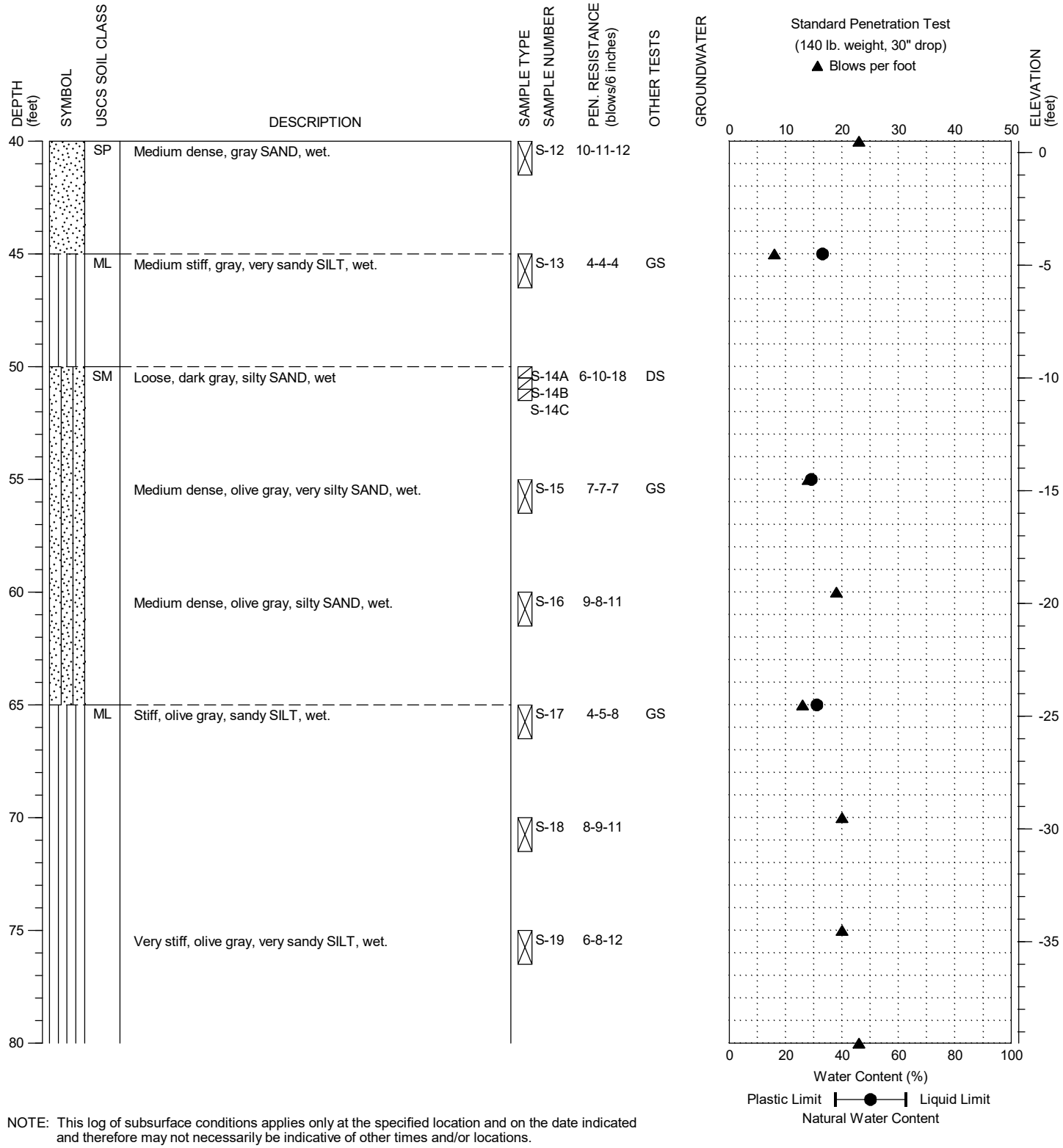
BORING:
HWA- 3

PROJECT NO.: 2019-127-21 FIGURE: A-4

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07574950, -122.18829205, Datum: WGS84

DATE STARTED: 11/9/2021
DATE COMPLETED: 11/9/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 40.5 ± feet



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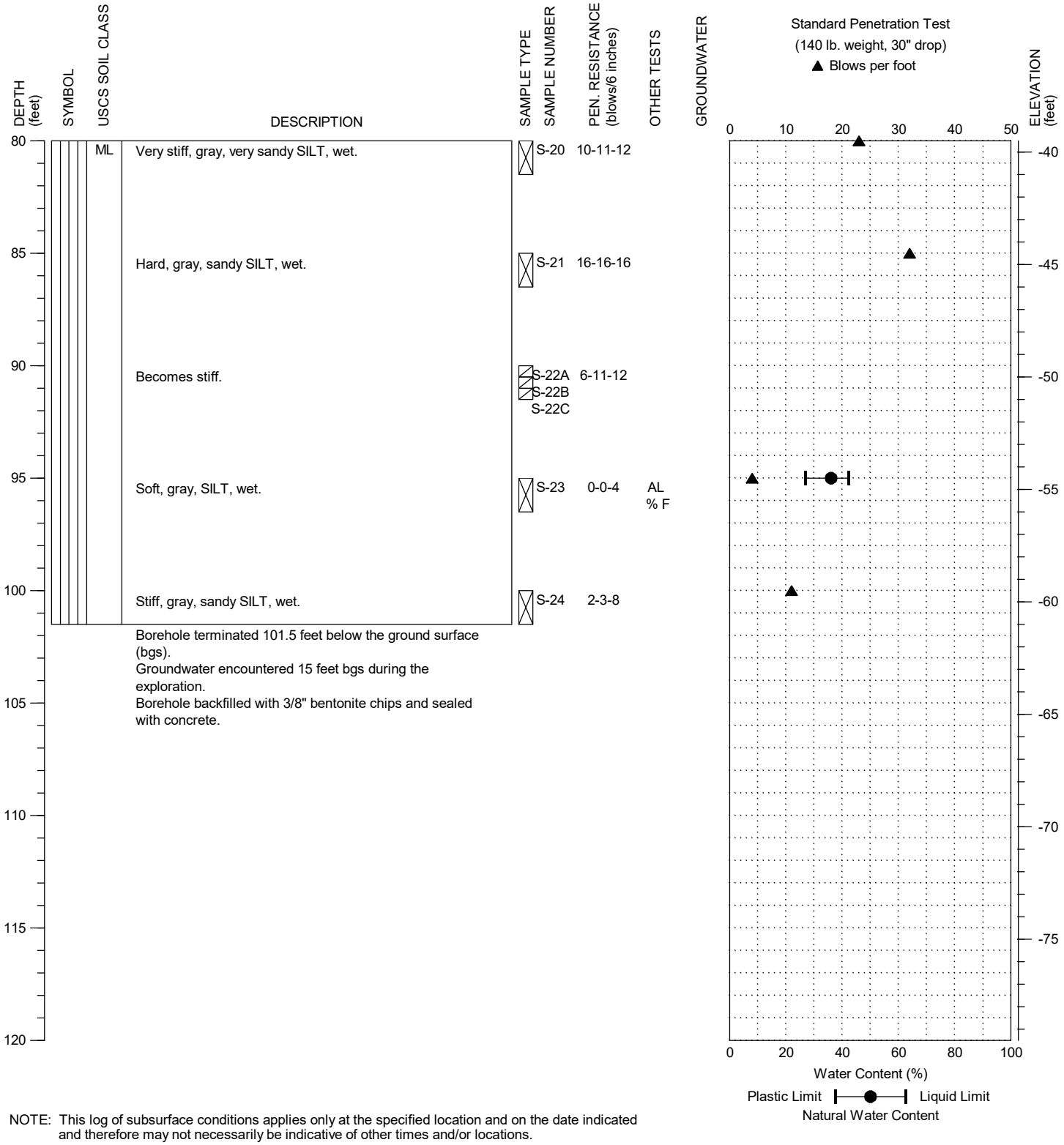
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 3

PROJECT NO.: 2019-127-21 FIGURE: A-4

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07574950, -122.18829205, Datum: WGS84

DATE STARTED: 11/9/2021
DATE COMPLETED: 11/9/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 40.5 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

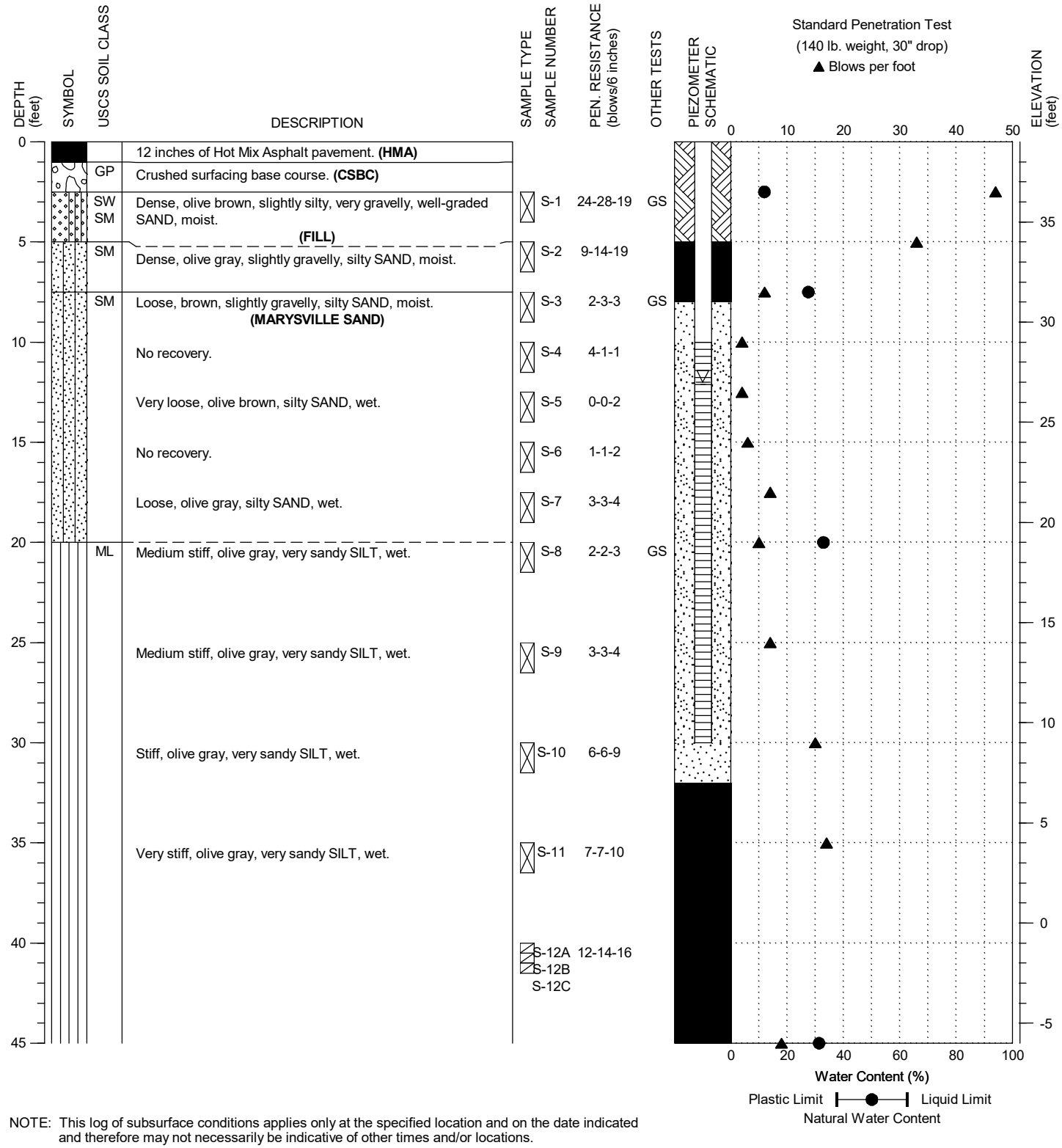
BORING:
HWA- 3

PROJECT NO.: 2019-127-21 FIGURE: A-4

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07595695, -122.18917399, Datum: WGS84

DATE STARTED: 11/11/2021
DATE COMPLETED: 11/11/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 39.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

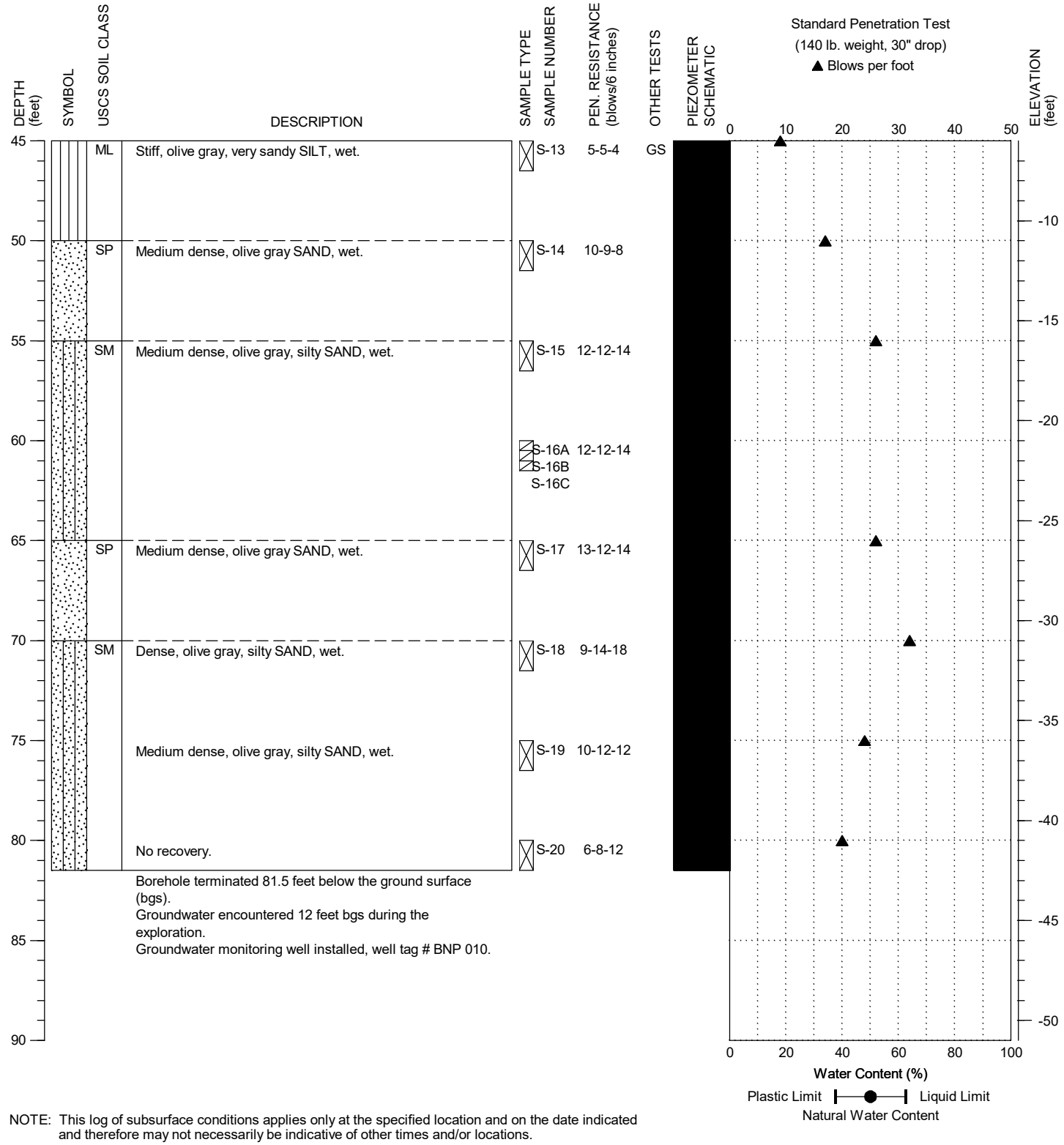
BORING:
HWA- 4P

PROJECT NO.: 2019-127-21 FIGURE: A-5

PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07595695, -122.18917399, Datum: WGS84

DATE STARTED: 11/11/2021
DATE COMPLETED: 11/11/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 39.0 ± feet



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I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

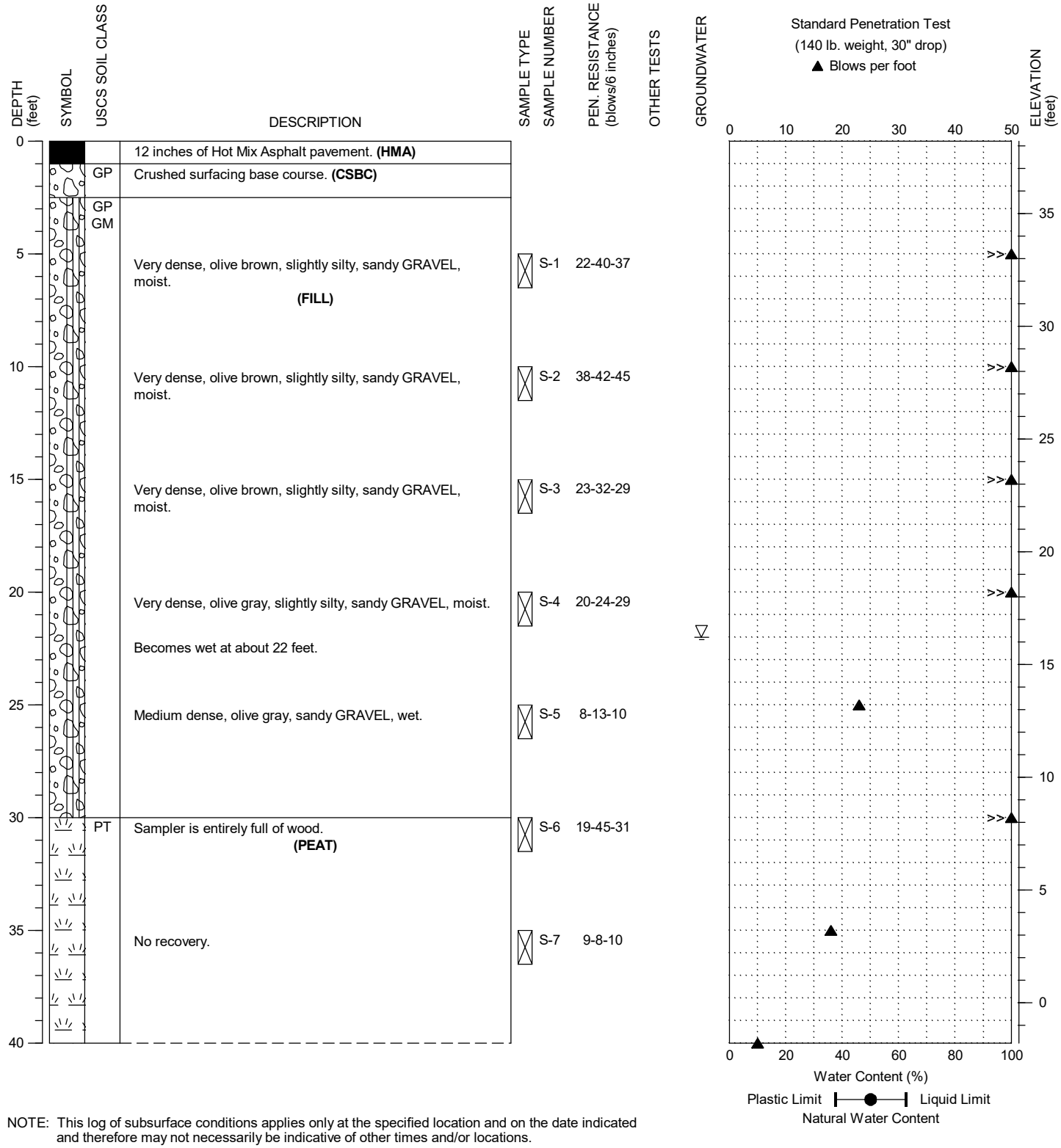
BORING:
HWA- 4P

PROJECT NO.: 2019-127-21 FIGURE: A-5

PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07591827, -122.18870239, Datum: WGS84

DATE STARTED: 11/10/2021
DATE COMPLETED: 11/10/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 38.2 ± feet



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I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 5

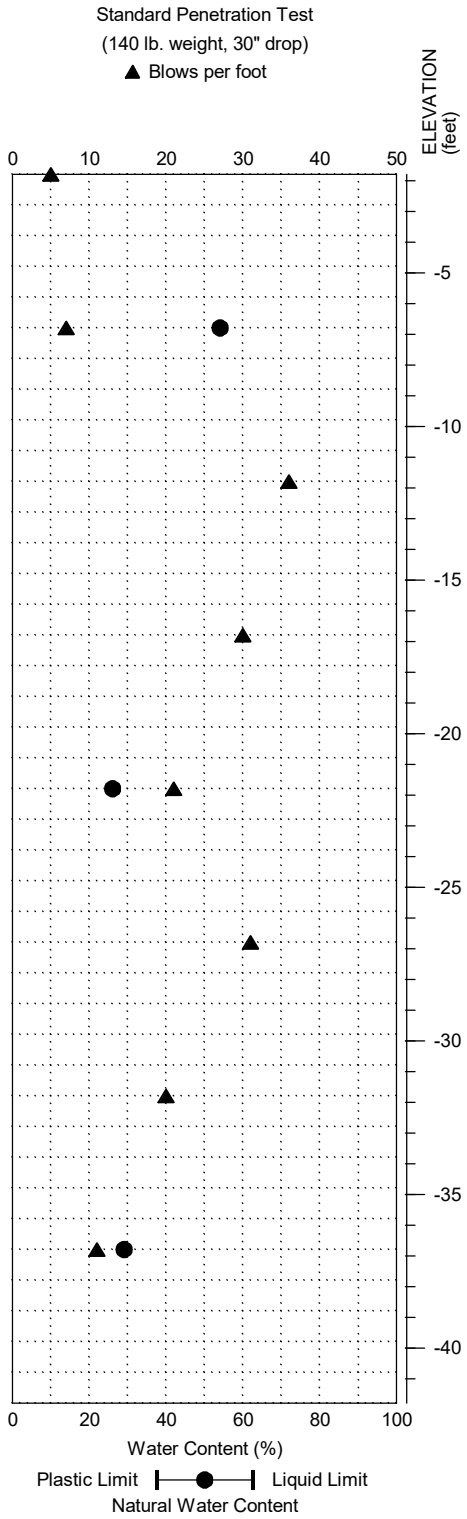
PROJECT NO.: 2019-127-21 FIGURE: A-6

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07591827, -122.18870239, Datum: WGS84

DATE STARTED: 11/10/2021
DATE COMPLETED: 11/10/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 38.2 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
40		SM	Medium stiff, black and brown, organic silty SAND, wet. 4 inches of wood in sample.		S-8	3-2-3	
45		SP SM	Loose, dark gray, slightly silty SAND, wet. Trace organics. **(MARYSVILLE SAND)**		S-9	4-2-5	GS
50			Dense, olive gray, slightly silty SAND, wet. Trace wood.		S-10	20-18-18	
55		ML	Very stiff, olive gray, very sandy SILT, wet.		S-11	18-17-13	
60			Very stiff, olive gray, very sandy SILT, wet.		S-12	11-9-12	GS
65			Hard, olive gray, very sandy SILT, wet.		S-13	12-15-16	
70			Very stiff, olive gray, very sandy SILT, wet.		S-14	10-8-12	
75			Stiff, olive gray, sandy SILT, wet.		S-15	3-5-6	GS
80							

GROUNDWATER



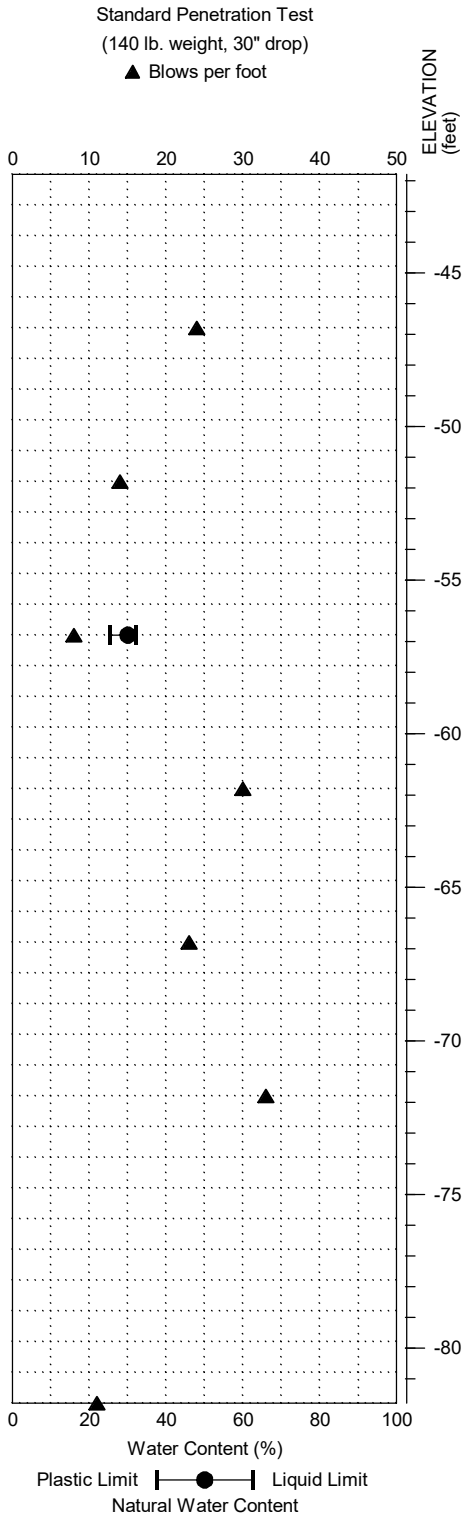
NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07591827, -122.18870239, Datum: WGS84

DATE STARTED: 11/10/2021
DATE COMPLETED: 11/10/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 38.2 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
80		SM	Medium dense, dark gray, silty SAND, wet.		S-16A S-16B S-16C	16-20-28	DS
85		ML	Very stiff, olive gray, very sandy SILT, wet.		S-17	3-10-14	
90			Stiff, olive gray, sandy SILT, wet.		S-18	2-5-9	
95			Stiff, olive gray, slightly sandy SILT, wet.		S-19	3-3-5	AL % F
100		SP	Dense, olive gray SAND, wet.		S-20	13-14-16	
105		SM	Medium dense, olive gray, silty SAND, wet.		S-21	5-10-13	
110			Dense, olive gray, silty SAND, wet.		S-22	4-13-20	
115			Dense, dark gray, silty SAND, wet.		S-23A S-23B S-23C	17-30-31	DS
120							

GROUNDWATER



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

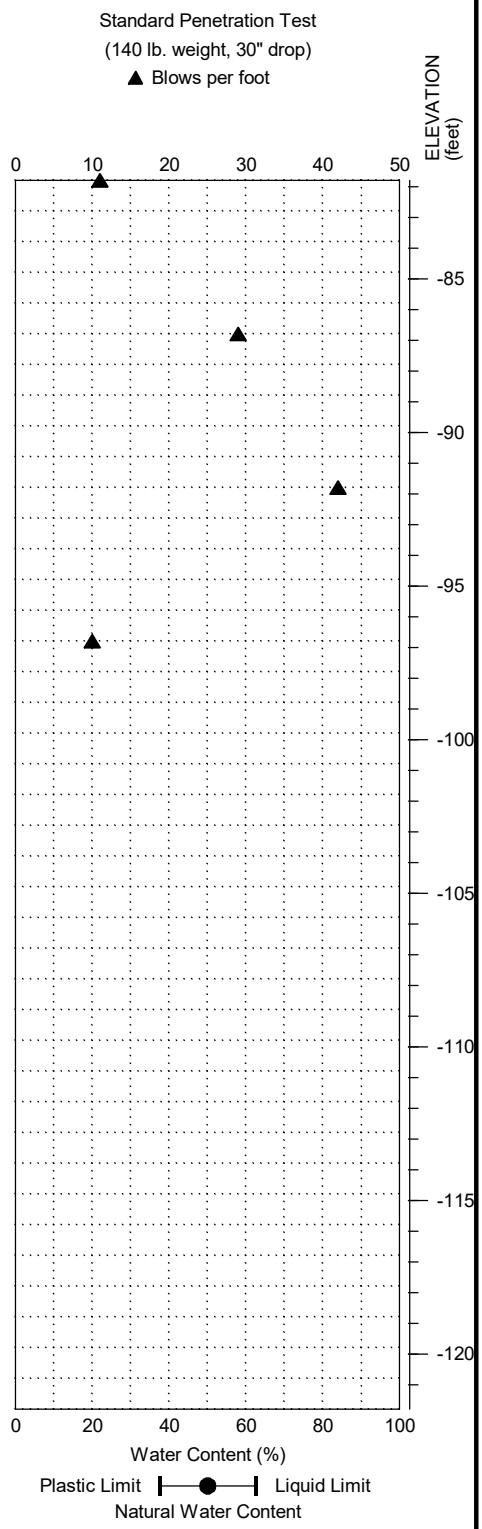
BORING:
HWA- 5

PROJECT NO.: 2019-127-21 FIGURE: A-6

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-50 Track Mounted Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.07591827, -122.18870239, Datum: WGS84

DATE STARTED: 11/10/2021
DATE COMPLETED: 11/10/2021
LOGGED BY: S. Miller
SURFACE ELEVATION: 38.2 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS	GROUNDWATER
120		ML	Stiff, olive gray, sandy SILT, wet.		S-24	8-4-7		
125		SM	Medium dense, olive gray, silty SAND, wet.		S-25	7-12-17		
130			Dense, olive gray, silty SAND, wet.		S-26	25-23-19		
135			No recovery.		S-27	4-5-5		
140			Borehole terminated 136.5 feet below the ground surface (bgs). Groundwater encountered 25 feet bgs during the exploration. Borehole backfilled with 3/8" bentonite chips and sealed with concrete.					
145								
150								
155								
160								



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 5

PROJECT NO.: 2019-127-21 FIGURE: A-6

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.07549082, -122.18750061, Datum: WGS84

DATE STARTED: 12/1/2021
DATE COMPLETED: 12/1/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 46.3 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE / SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
0		SM	Brown, slightly gravelly, silty SAND, moist. **(FILL)**			
		SP	Medium dense, yellowish-brown, fine to medium SAND, moist. **(MARYSVILLE SAND)**	S-1	5-6-6	GS
5			Grades to gray brown.	S-2	4-6-5	
		SP SM	Medium dense, olive brown, slightly silty SAND, moist.	S-3	7-6-6	GS
10			Medium dense, olive brown, slightly silty SAND, moist.	S-4A	6-6-4	
		ML	Stiff, orange mottled olive brown, SILT, moist. Bedded.	S-4B		
		SP SM	Loose, olive brown grading to reddish brown, slightly silty SAND, moist.	S-5	4-2-4	GS
15			Contains silt lenses.	S-6	3-5-5	
			Medium dense, olive brown, slightly silty SAND, moist.	S-7	7-9-11	GS
20				S-8	9-11-11	
25		ML	Very stiff, olive brown, very sandy SILT, moist to wet.	S-9A	4-7-8	
		SM	Medium dense, dark olive brown grading to reddish brown, silty SAND, wet.	S-9B		
			Driller added mud inside auger.			
30			Grades to dark olive brown. Trace gravel.	S-10	10-12-13	
35			No gravel. Sampler difficult to retrieve.	S-11	10-12-15	
40			Borehole terminated 39 feet below the ground surface (bgs) due to refusal in heave. Groundwater encountered 25 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.			
45						

GROUNDWATER ▽

Standard Penetration Test
(140 lb. weight, 30" drop)
▲ Blows per foot

0 10 20 30 40 50

ELEVATION (feet): 45 40 35 30 25 20 15 10 5

0 20 40 60 80 100
Water Content (%)
Plastic Limit ●—● Liquid Limit
Natural Water Content

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 6

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-7

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.07601224, -122.18624799, Datum: WGS84

DATE STARTED: 12/1/2021
DATE COMPLETED: 12/1/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 65.0 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
0		SM	4 inches of Hot Mix Asphalt pavement. **(HMA)**		S-1	50/5"	
		SM	Very dense, dark brown, silty SAND, moist. **(FILL)**		S-2	6-14-7	
5			Medium dense, gray, silty SAND, moist. Trace gravel. Poor recovery. **(TILL FILL)**		S-3	10-15-8	GS
			Medium dense, gray, gravelly, silty SAND, moist.		S-4	7-8-12	
10			Medium dense, gravelly, clayey, very silty SAND, moist.		S-5	6-11-14	GS
			Medium dense, gray, very silty SAND, moist. Finely bedded.		S-6	8-8-6	
15			Medium dense, olive brown, gravelly, very silty SAND, moist.		S-7	6-8-16	
		SW SM	Medium dense, olive brown, slightly gravelly, very silty SAND, moist.		S-8	17-12-10	GS
20		SP	Medium dense, dark brown, slightly silty, well-graded SAND, moist. Finely bedded, scattered organics and charcoal. **(MARYSVILLE SAND)**		S-9	4-4-5	
			Loose, yellowish-brown grading to olive brown, fine SAND, moist. Trace roots.				
25			Medium dense, grayish brown, fine to coarse SAND, moist.		S-10	13-20-8	
30		ML SP SM	Very stiff, orange and olive brown mottled gray, sandy SILT, moist.		S-11A S-11B	10-14-13	
			Medium dense, olive brown, slightly silty, fine SAND, moist. Very fine beds.				
35		SM	Medium dense, olive brown, silty, fine SAND, moist to wet. Finely bedded, oxidation on few bedding planes. Scattered silt beds.		S-12	8-9-8	
40		SP SM	Dense, grayish-brown, slightly silty, fine to medium SAND, wet.		S-13	6-15-15	
			Borehole terminated 41.5 feet below the ground surface (bgs). Groundwater encountered 39 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips and patched with cold mix asphalt.				
45							
50							

GROUNDWATER ▽

Standard Penetration Test
(140 lb. weight, 30" drop)
▲ Blows per foot

0 10 20 30 40 50 >>

ELEVATION (feet): 60 55 50 45 40 35 30 25 20

0 20 40 60 80 100
Water Content (%)
Plastic Limit ●—● Liquid Limit
Natural Water Content

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 7

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-8

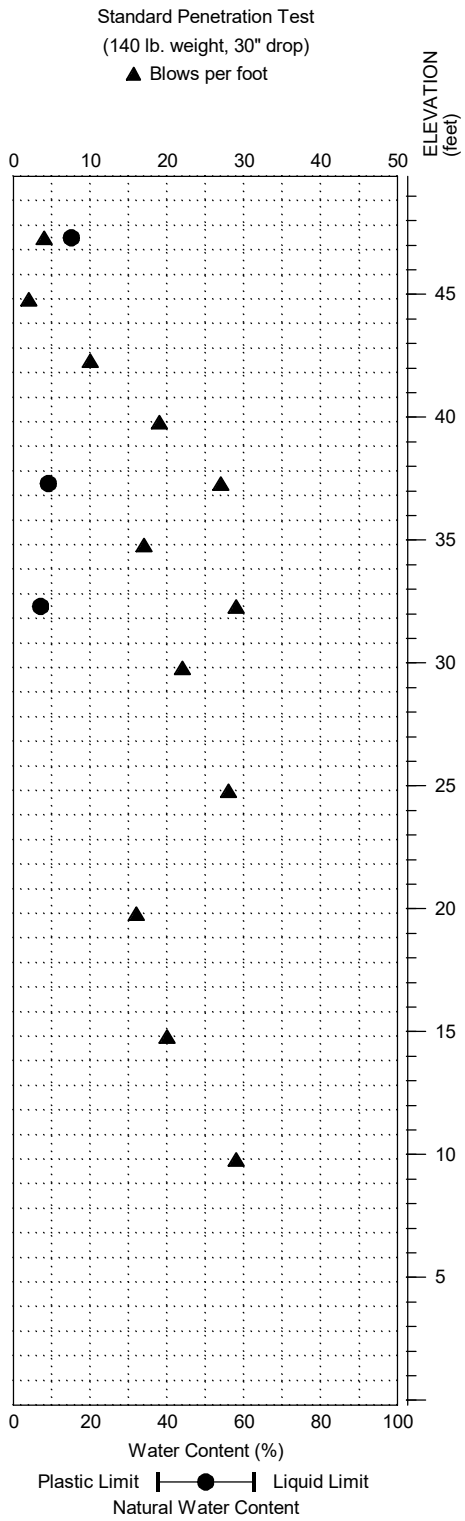
BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.07538660, -122.18573643, Datum: WGS84

DATE STARTED: 12/2/2021
DATE COMPLETED: 12/2/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 49.8 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
0		SM	Dark brown, silty SAND, moist. Abundant roots. **(TOPSOIL)**				
		SM	Loose, reddish-brown, silty, fine SAND, moist. **(MARYSVILLE SAND)**		S-1	3-2-2	GS
5		SP	Very loose, yellowish-brown, fine SAND, moist.		S-2	1-1-1	
			Medium dense, yellowish-brown, fine to coarse SAND, moist.		S-3	2-4-6	
10			Grades to brownish-gray, fine.		S-4	7-9-10	
		SP SM	Medium dense, brownish-gray, slightly silty, fine SAND, moist. Scattered silt lenses and 1 to 2-inch-thick bedding.		S-5	12-14-13	GS
15			Grades to dark olive brown.		S-6	8-9-8	
		SP	Medium dense, dark gray brown, fine to medium SAND, moist.		S-7	12-15-14	GS
20			Grades to fine.		S-8	10-11-12	
25		SP SM	Medium dense, dark gray brown, slightly silty, fine SAND, wet.		S-9	11-15-13	
			Driller added drilling mud inside auger.				
30		SM	Medium dense, olive brown, silty SAND, wet. 0.5-inch-thick finely bedded silt lens.		S-10	5-8-8	
35			Medium dense, olive brown, silty SAND, wet. Scattered fine bedding planes.		S-11	7-10-10	
40			Medium dense, olive brown, very silty SAND, wet.		S-12	10-14-15	
45			Borehole terminated 41.5 feet below the ground surface (bgs). Groundwater encountered 25 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.				
50							

GROUNDWATER ▽



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 8

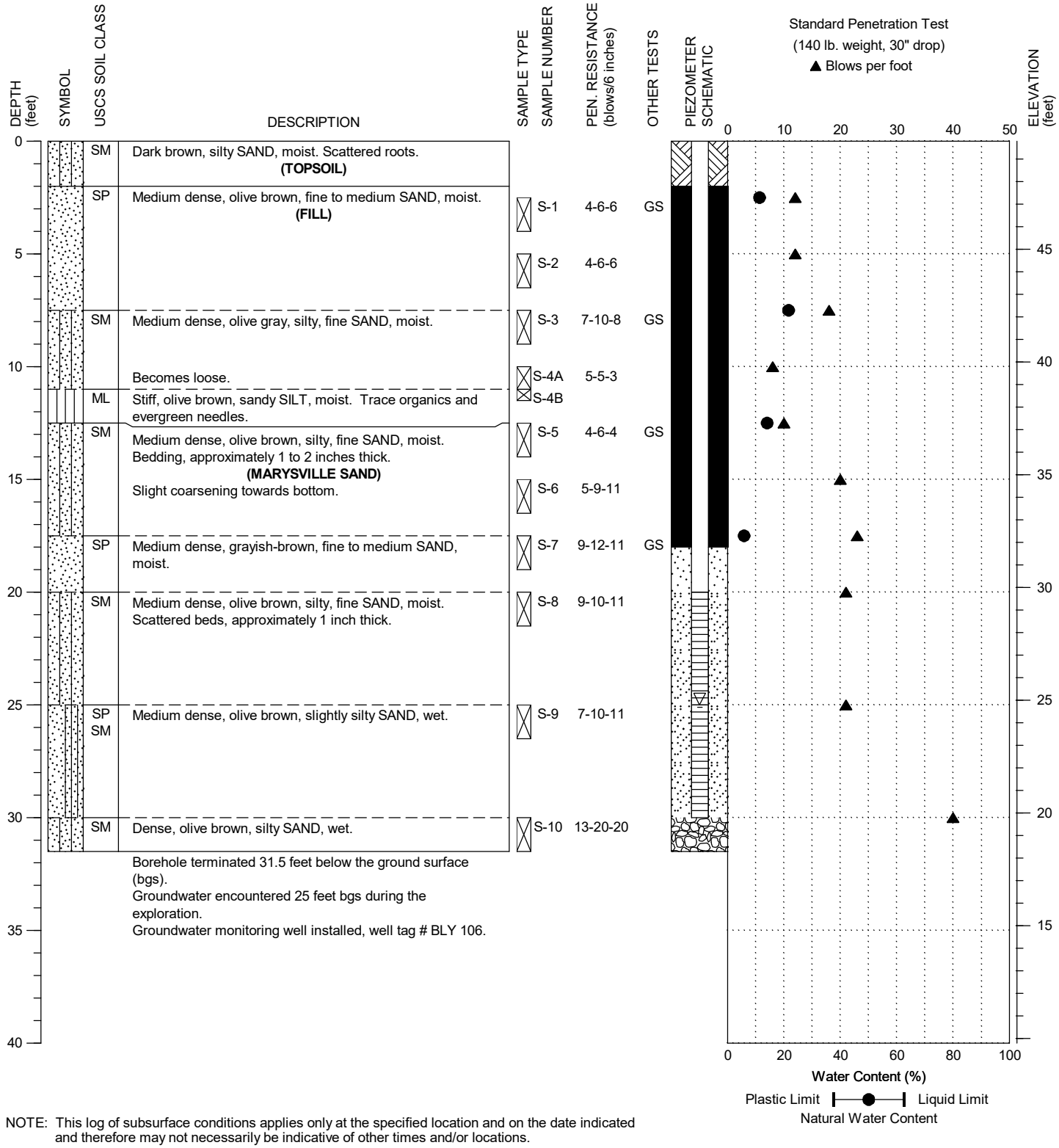
PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-9

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 3.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.07547421, -122.18346708, Datum: WGS84

DATE STARTED: 11/30/2021
DATE COMPLETED: 11/30/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 49.8 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA- 9P

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-10

PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

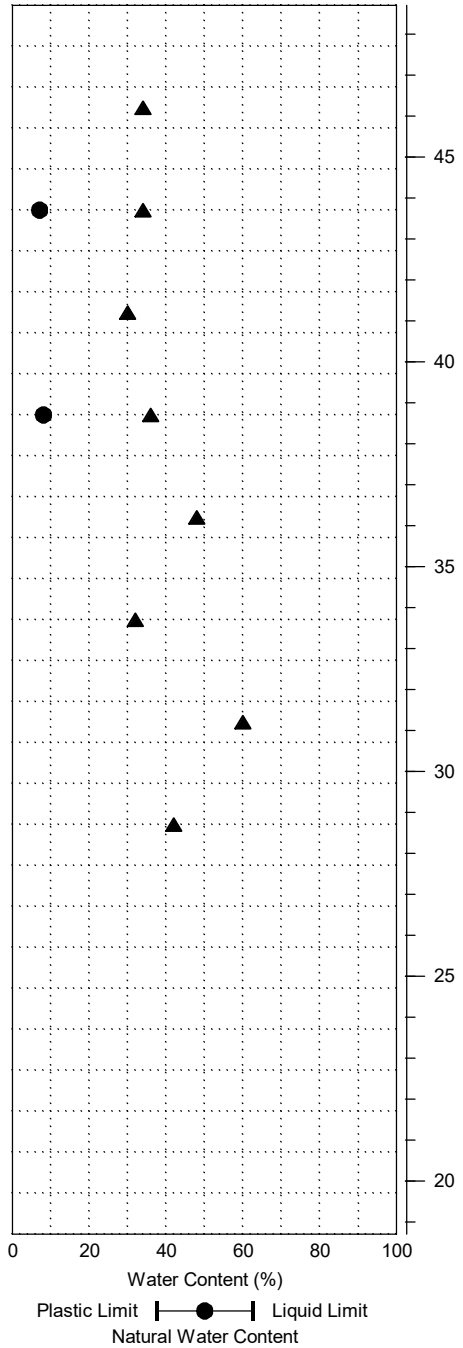
DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.07588233, -122.18232313, Datum: WGS84

DATE STARTED: 11/29/2021
DATE COMPLETED: 11/29/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 48.7 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
0		SM	Dark brown, gravelly, silty SAND, moist. Abundant roots.				
		SM	**(TOPSOIL)**				
			Medium dense, reddish-brown grading to yellowish-brown, silty, fine to coarse SAND, moist. Trace gravel. **(MARYSVILLE SAND)**		S-1	4-8-9	
5		SP SM	Medium dense, yellowish-brown grading to gray brown, slightly silty, fine to medium SAND, moist.		S-2	6-8-9	GS
			Medium dense, gray brown, slightly silty, fine to medium SAND, moist.		S-3	9-6-9	
10			Medium dense, gray brown, slightly silty, fine SAND, moist.		S-4	7-9-9	GS
		SP	Medium dense, gray brown, fine SAND, moist.		S-5	10-12-12	
15			Medium dense, olive brown, fine SAND, moist. 1 inch thick silt lens.		S-6	10-9-7	
			Becomes dense.		S-7	13-14-16	
20		SP SM	Medium dense, olive brown, slightly silty, fine SAND, moist.		S-8	7-10-11	
			Borehole terminated 21.5 feet below the ground surface (bgs). No groundwater encountered during the exploration. Borehole abandoned with 3/8" bentonite chips.				
25							
30							

GROUNDWATER

Standard Penetration Test
(140 lb. weight, 30" drop)
▲ Blows per foot



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-10

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-11

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.05276828, -122.18699684, Datum: WGS84

DATE STARTED: 11/29/2021
DATE COMPLETED: 11/29/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 23.0 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
0			4 inches Hot Mix Asphalt pavement. **(HMA)**				
		SM SP	Medium dense, dark brown, silty, gravelly SAND, moist. **(FILL)**		S-1A S-1B	9-11-7	
			Medium dense, reddish-brown, fine SAND, moist. **(MARYSVILLE SAND)**		S-2	4-2-2	
5			Loose, reddish-brown, fine SAND, moist. Scattered dark brown charcoal layers, trace gravel.				
			Very loose, reddish-brown grading to olive brown, fine to medium SAND, moist.		S-3	1-1-1	GS
			Becomes medium dense, moist to wet.		S-4	4-6-7	GS
10			Medium dense, dark gray, fine to coarse SAND, wet.		S-5	7-8-7	
		SP SM	Medium dense, dark gray, slightly silty, fine to coarse SAND, wet.		S-6	8-9-8	
			Driller added drilling mud to auger.				
15		SM	Medium dense, dark olive brown, silty, fine SAND, wet.		S-7	5-6-9	
		SP SM	Medium dense, dark olive brown, slightly silty, fine SAND, wet.		S-8	6-13-14	
20			Dense, dark olive brown, slightly silty, very fine SAND, wet.		S-9	4-12-18	
			Borehole terminated 21.5 feet below the ground surface (bgs). Groundwater encountered 10 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips and patched with cold mix asphalt.				
25							
30							

GROUNDWATER ▽

Standard Penetration Test
(140 lb. weight, 30" drop)
▲ Blows per foot

0 10 20 30 40 50

ELEVATION (feet): 20, 15, 10, 5, 0, -5

0 20 40 60 80 100
Water Content (%)
Plastic Limit ⊢●⊣ Liquid Limit
Natural Water Content

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-11

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-12

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.05185176, -122.18633711, Datum: WGS84

DATE STARTED: 11/29/2021
DATE COMPLETED: 11/29/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 25.2 ± feet

DEPTH (feet)	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE / SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
0	SM	Medium dense, dark brown, silty SAND, moist. Trace gravel, roots. Layer of charcoal at base of unit. **(TOPSOIL)**			
	SP SM	Medium dense, yellowish-brown, slightly silty, fine SAND, moist to wet. **(MARYSVILLE SAND)**	S-1A S-1B	6-8-9	
5	SM	Loose, reddish-brown, silty, fine to medium SAND, moist. Abundant charcoal.	S-2	3-3-4	GS
	SP SM	Loose, yellowish-brown grading to olive brown, slightly silty, fine SAND, moist.	S-3	4-3-5	
10	SP	Loose, grayish-brown, fine to medium SAND, moist.	S-4	6-3-9	
		Medium dense, yellowish-brown mottled olive brown, fine to medium SAND, wet. Driller added mud.	S-5	5-7-9	GS
15	SP SM	Medium dense, grayish-brown, slightly silty SAND, wet.	S-6	5-6-9	
		Approximately 6 inches heave. Grades to fine sand with trace coarse sand.	S-7	13-13-13	
20	SM	Medium dense, dark olive brown, silty, fine SAND, wet.	S-8	4-9-11	
25		Borehole terminated 21.5 feet below the ground surface (bgs). Groundwater encountered 14 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.			
30					

GROUNDWATER ▽

Standard Penetration Test
(140 lb. weight, 30" drop)
▲ Blows per foot

0 10 20 30 40 50

ELEVATION (feet): 25 20 15 10 5 0

0 20 40 60 80 100
Water Content (%)
Plastic Limit ⊢●⊣ Liquid Limit
Natural Water Content

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-12

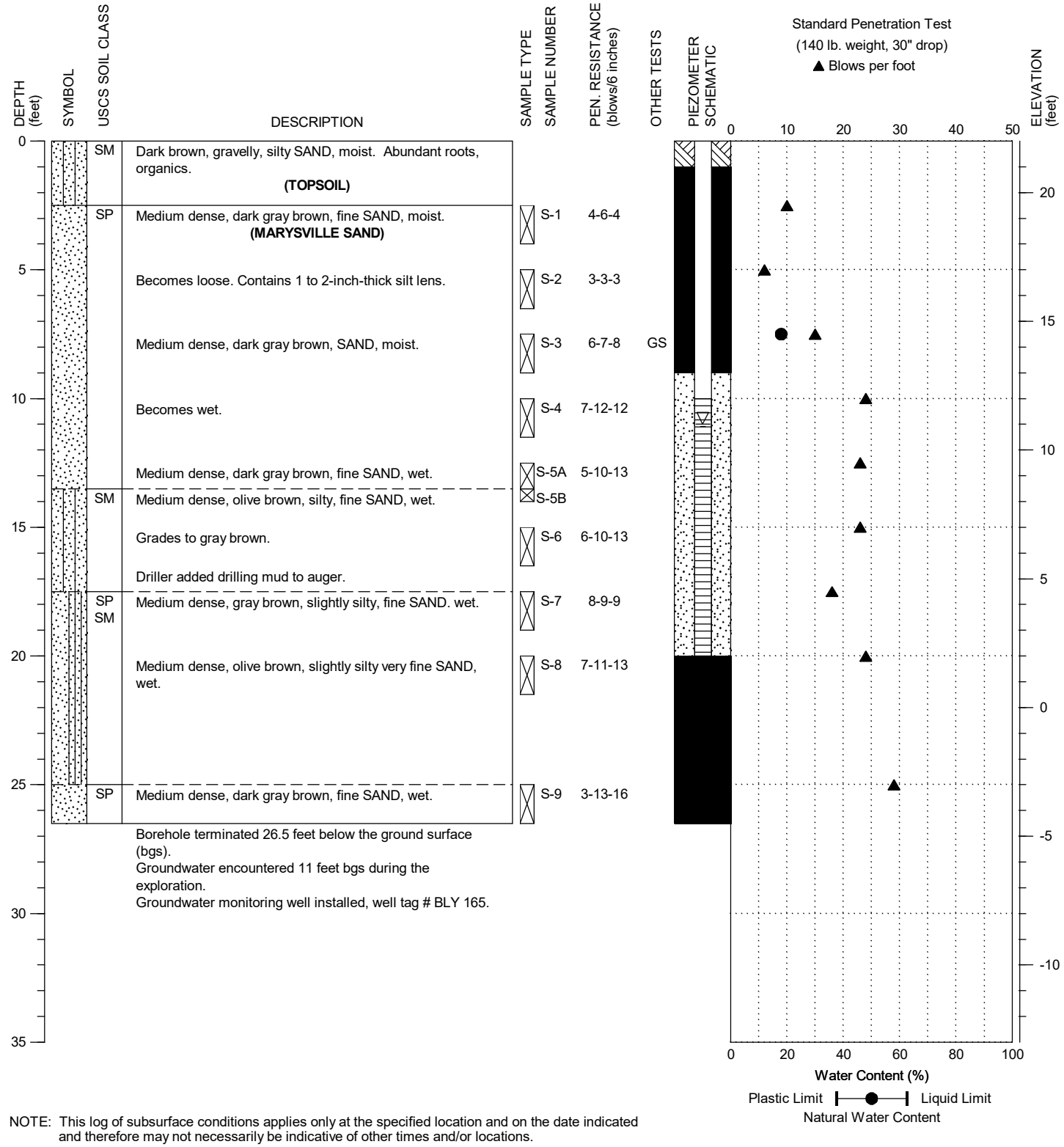
PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-13

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 3.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.05224940, -122.18570236, Datum: WGS84

DATE STARTED: 12/3/2021
DATE COMPLETED: 12/3/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 22.0 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-13P

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-14

PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

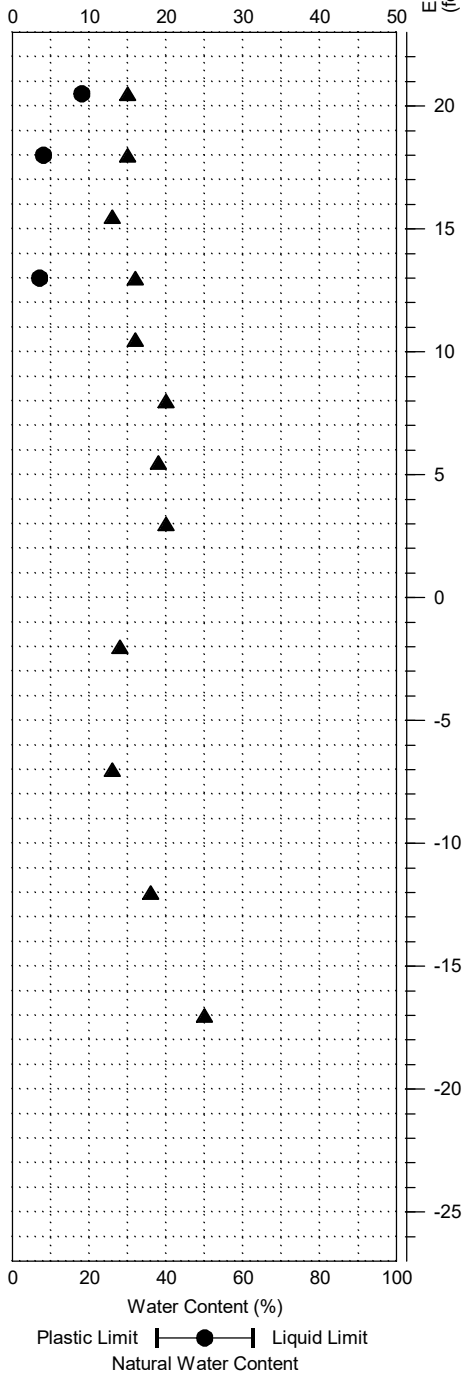
DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 3.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.05160465, -122.18532218, Datum: WGS84

DATE STARTED: 11/30/2021
DATE COMPLETED: 11/30/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 23.0 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
0		SM	Dark brown, silty SAND, moist. Trace gravel. **(TOPSOIL)**				
		SP SM	Medium dense, olive brown, slightly silty, fine to medium SAND, moist. **(MARYSVILLE SAND)**	X	S-1	4-7-8	GS
5			Grades to reddish-brown, with scattered charcoal.	X	S-2	6-8-7	GS
		SP	Medium dense, yellowish-brown, slightly silty, fine SAND, moist.	X	S-3	5-6-7	
			Medium dense, olive gray, fine SAND, moist.				
10			Medium dense, grayish-brown, fine to medium SAND, moist.	X	S-4	4-8-8	GS
			Driller added drilling mud inside auger.				
		SM	Medium dense, olive brown, silty, fine SAND, wet.	X	S-5	8-6-10	
15				X	S-6	5-10-10	
		SP SM	Medium dense, olive gray, slightly silty, fine SAND, wet.	X	S-7	6-9-10	
20				X	S-8	5-10-10	
25		SM	Medium dense, olive brown, silty very fine SAND, wet.	X	S-9	5-7-7	
30				X	S-10	2-4-9	
35		SP SM	Medium dense, olive gray, slightly silty, fine to medium SAND, wet.	X	S-11	6-5-13	
40		SM	Medium dense, olive gray, silty, fine to medium SAND, wet.	X	S-12	7-10-15	
45			Borehole terminated 41.5 feet below the ground surface (bgs). Groundwater encountered 12 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.				
50							

GROUNDWATER ▽

Standard Penetration Test
(140 lb. weight, 30" drop)
▲ Blows per foot



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-14

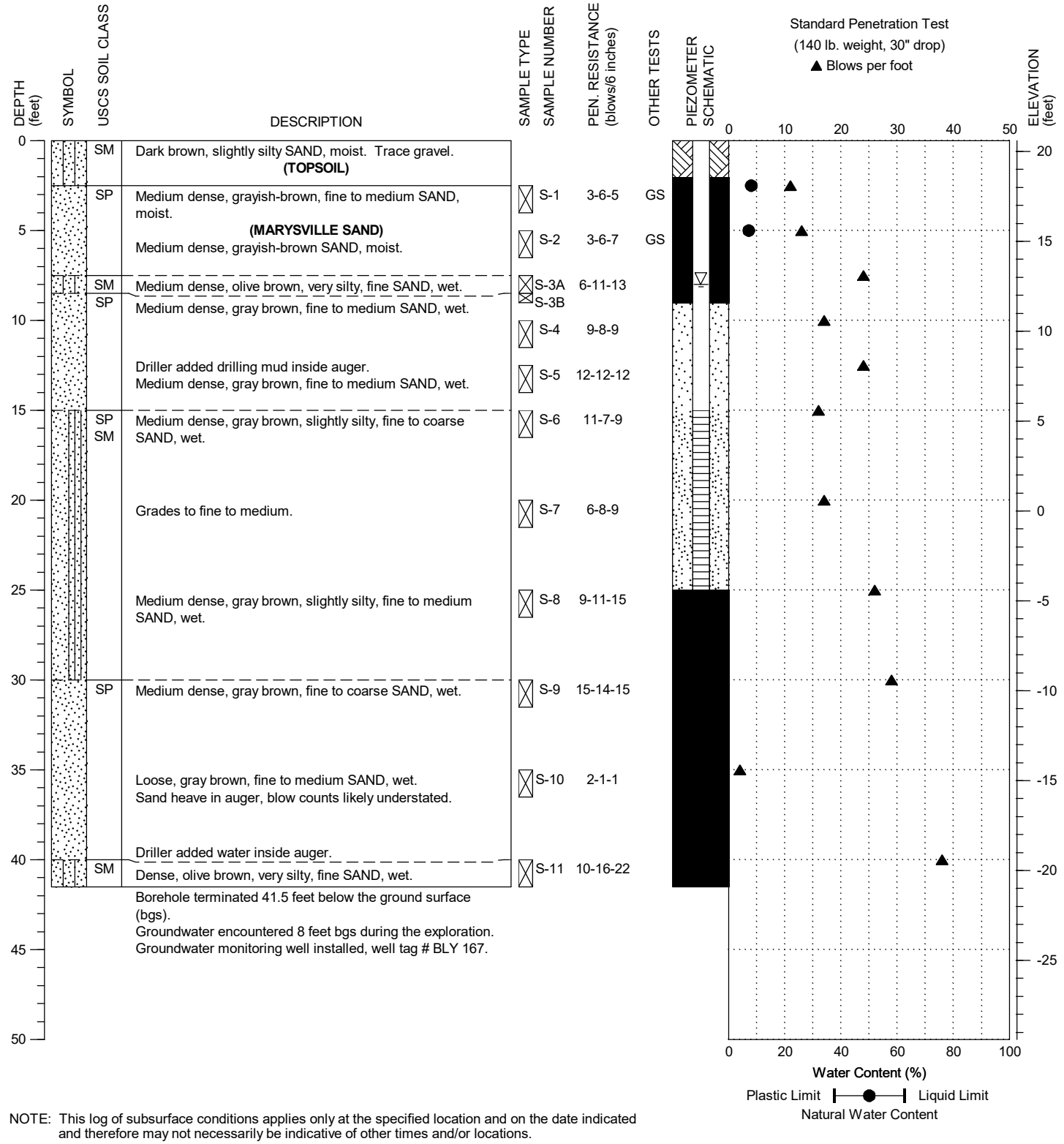
PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-15

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 3.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.05203352, -122.18377440, Datum: WGS84

DATE STARTED: 12/3/2021
DATE COMPLETED: 12/3/2021
LOGGED BY: C. Parks
SURFACE ELEVATION: 20.6 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-15P

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-16

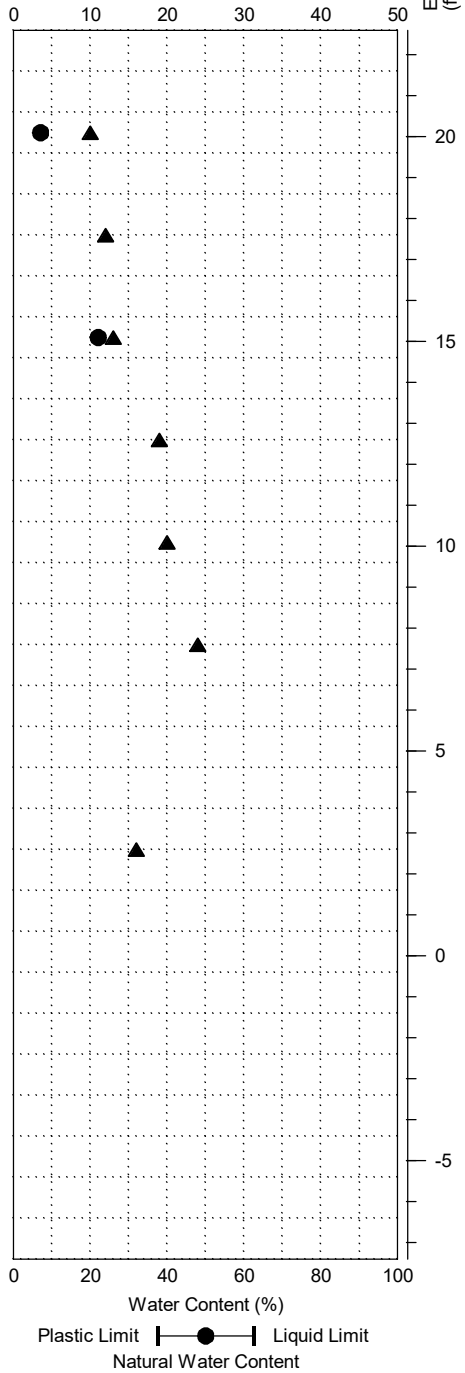
PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.05206939, -122.18344063, Datum: WGS84

DATE STARTED: 12/2/2021
DATE COMPLETED: 12/2/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 22.6 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS	GROUNDWATER
0		SM	Dark brown, silty SAND, moist. Abundant organics and roots. **(TOPSOIL)**					
		SP	Medium dense, dark grayish-brown, fine to medium SAND, moist. Trace rootlets. **(MARYSVILLE SAND)**		S-1	3-4-6	GS	
5			Grades to fine to coarse, trace gravel.		S-2	6-6-6		
			Medium dense, orange-mottled dark grayish-brown, fine to medium SAND, moist.		S-3	6-6-7	GS	
10		SP SM	Medium dense, dark gray brown, slightly silty, fine SAND, wet. Driller added drilling mud inside auger.		S-4	5-9-10		▽
		SP	Medium dense, dark gray brown, fine to coarse SAND, wet.		S-5	8-10-10		
15		SP SM	Medium dense, dark gray brown, slightly silty, fine to medium SAND, wet. Sand seizing auger flight while drilling to 20 feet.		S-6	21-14-10		
20		SM	Medium dense, olive brown, silty, fine SAND, wet.		S-7	5-6-10		
25			Borehole terminated 21.5 feet below the ground surface (bgs). Groundwater encountered 10 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.					
30								

Standard Penetration Test
(140 lb. weight, 30" drop)
▲ Blows per foot



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-16

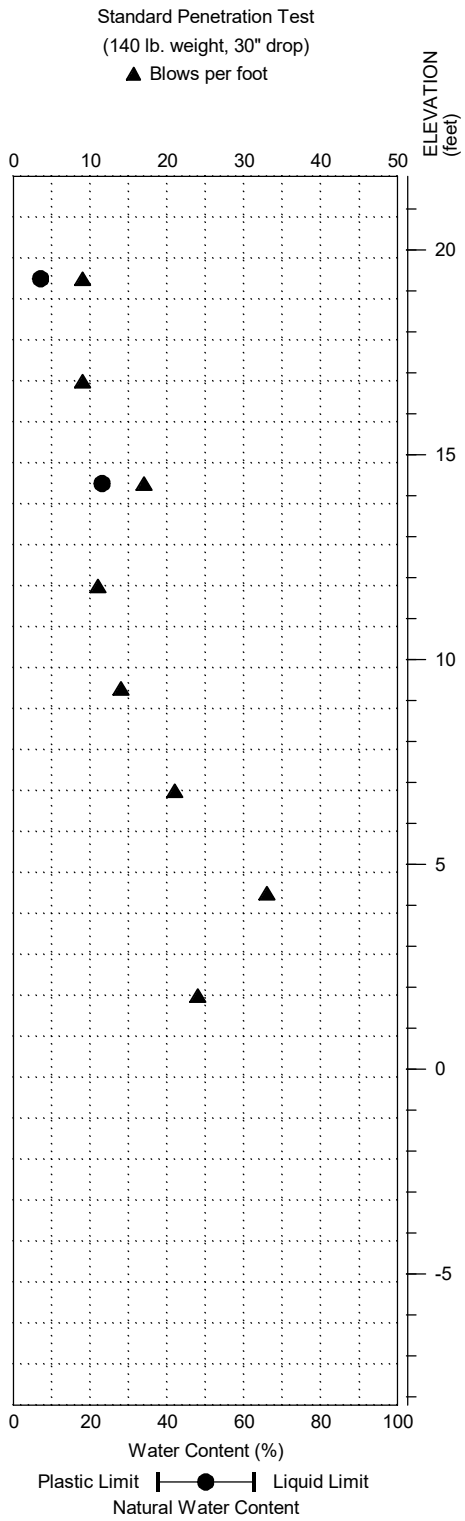
PROJECT NO.: 2019-127-21 FIGURE: A-17

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.05158557, -122.18342089, Datum: WGS84

DATE STARTED: 12/2/2021
DATE COMPLETED: 12/2/2021
LOGGED BY: M.A. Benson
SURFACE ELEVATION: 21.8 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE / SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS	GROUNDWATER
0		SM	Dark brown, silty SAND, moist. Abundant roots and organics. **(TOPSOIL)**				
		SP	Loose, dark olive brown, fine to medium SAND, moist. **(MARYSVILLE SAND)**	S-1	4-4-5	GS	
5			Grades to dark gray brown, contains trace gravel.	S-2	3-4-5		
			Medium dense, dark gray brown, fine to medium SAND, moist.	S-3	8-8-9	GS	
			Driller added drilling mud inside auger.				
10			Medium dense, dark gray brown, fine to coarse SAND, wet.	S-4	3-5-6		▽
				S-5A	6-6-8		
				S-5B			
		SM	Medium dense, orange-mottled olive brown, very silty SAND, wet.				
15		SP SM	Medium dense, dark gray brown, slightly silty, fine SAND, wet.	S-6	5-9-12		
				S-7	14-18-15		
20		SP	Medium dense, dark gray brown, fine SAND, wet.	S-8	5-9-15		
25			Borehole terminated 21.5 feet below the ground surface (bgs). Groundwater encountered 10 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.				
30							



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-17

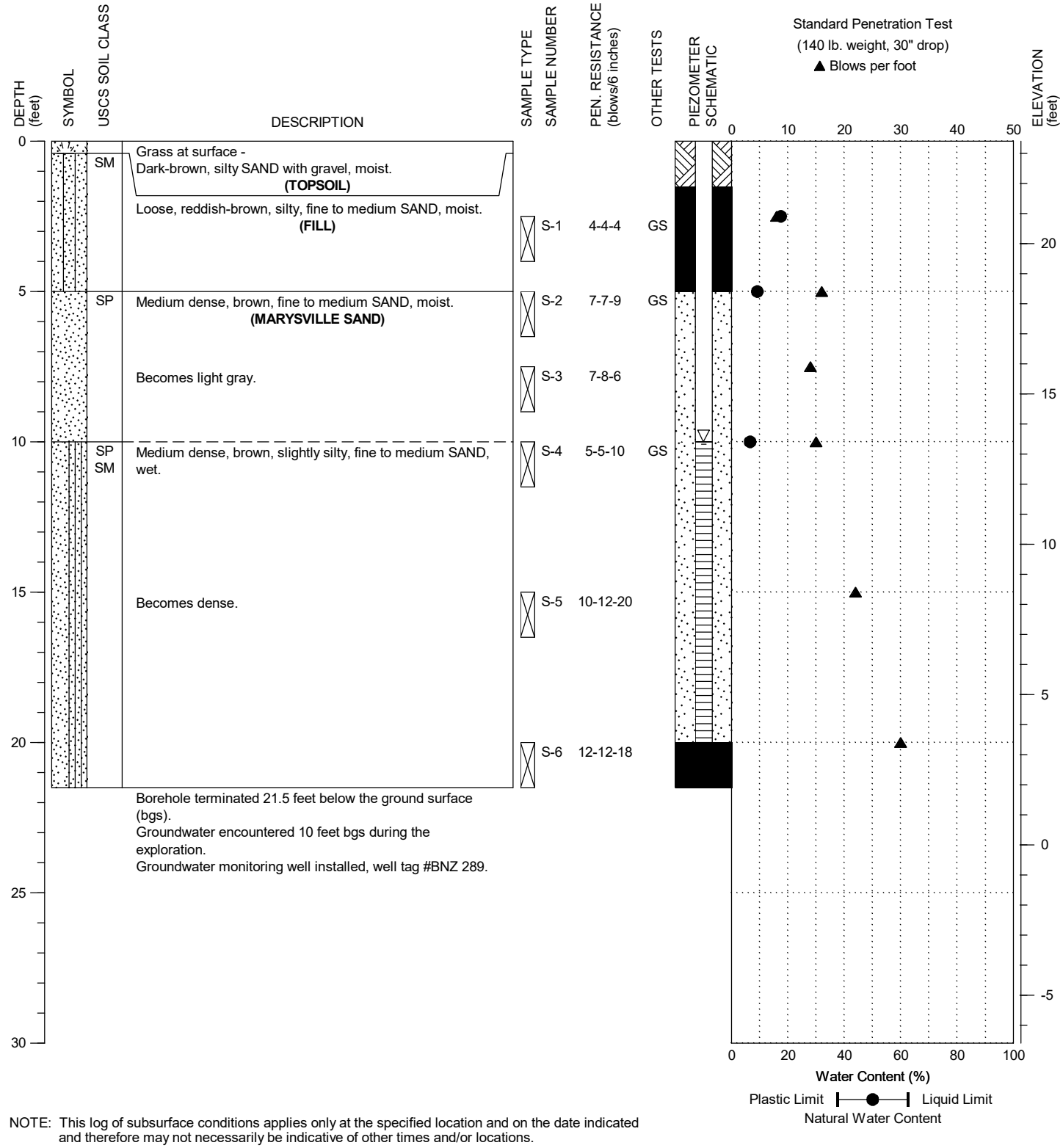
PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-18

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.051691, -122.183853, Datum: WGS84

DATE STARTED: 2/8/2023
DATE COMPLETED: 2/8/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 23.4 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-18P

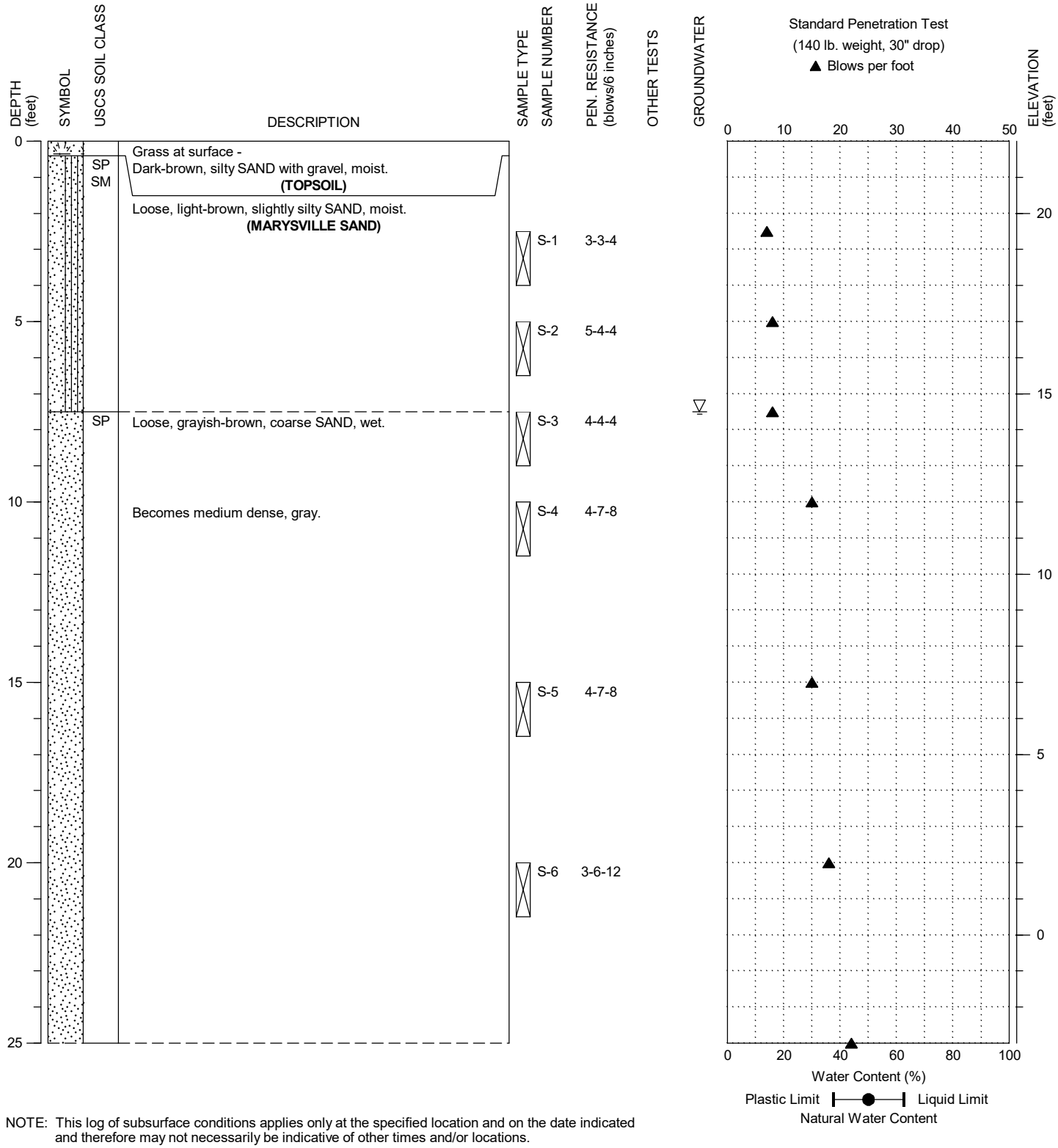
PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-19

PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.052098, -122.185347, Datum: WGS84

DATE STARTED: 2/8/2023
DATE COMPLETED: 2/8/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 22.0 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-19

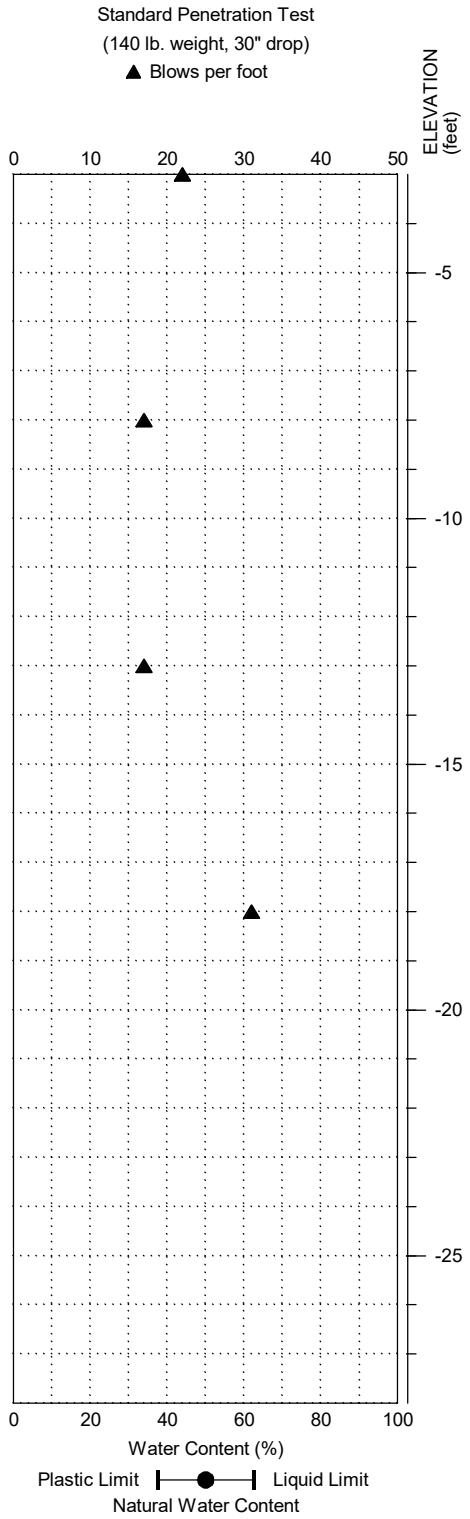
PROJECT NO.: 2019-127-21 FIGURE: A-20

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/ Rope and Cathead
LOCATION: 48.052098, -122.185347, Datum: WGS84

DATE STARTED: 2/8/2023
DATE COMPLETED: 2/8/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 22.0 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
25		SP SM	Medium dense, gray, slightly silty, fine SAND, wet.		S-7	2-10-12	
30			Becomes grayish-brown.		S-8A	6-7-10	
					S-8B		
		CL	Very stiff, light-brown, lean CLAY, moist.				
35		SP SM	Medium dense, brown, slightly silty, fine SAND, wet.		S-9	2-7-10	
40			Becomes dense, grayish-brown.		S-10	6-15-16	
45			Borehole terminated 41.5 feet below the ground surface (bgs). Groundwater encountered 7.5 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.				
50							

GROUNDWATER



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GeoSciences Inc.

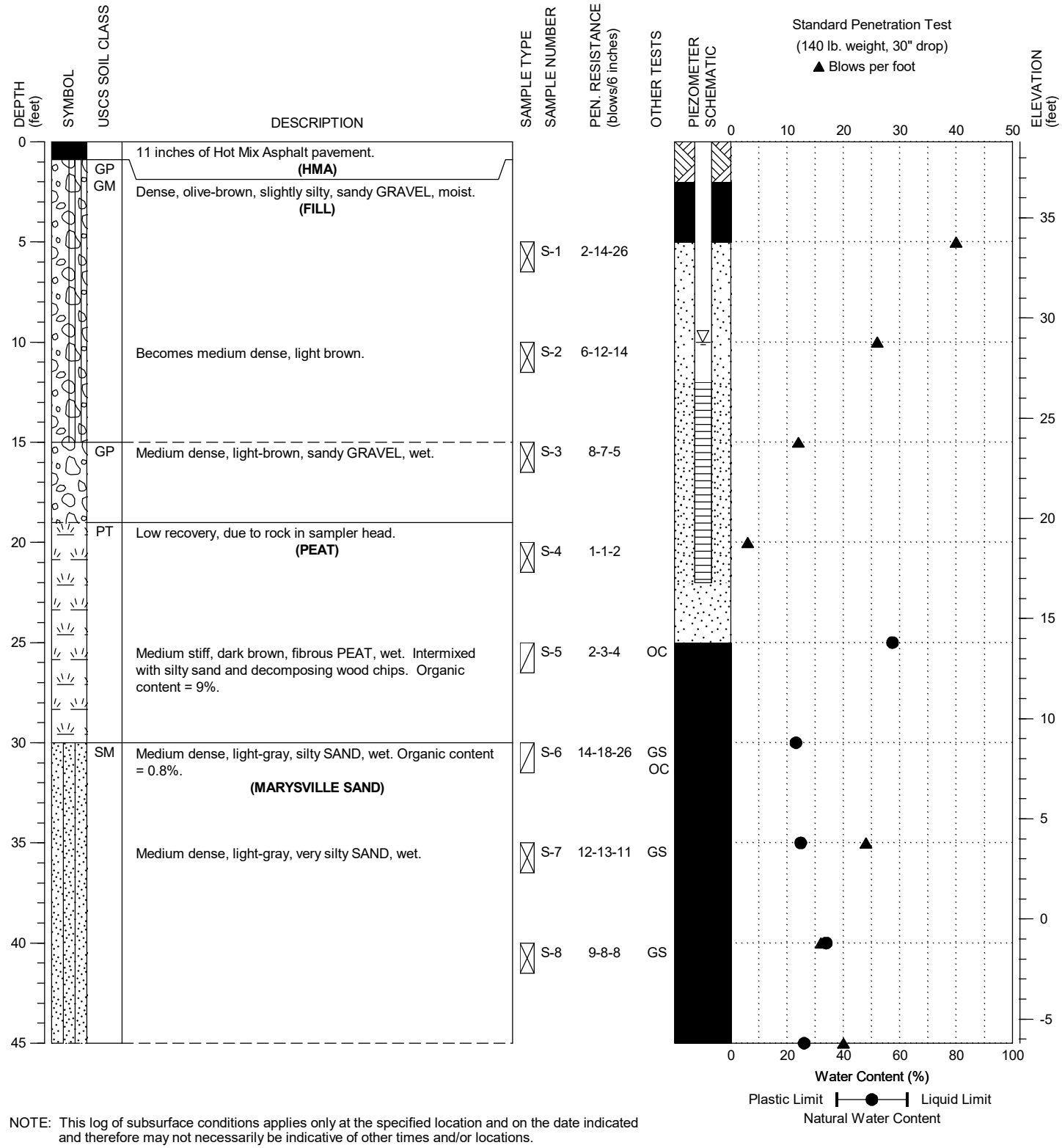
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-19

PROJECT NO.: 2019-127-21 FIGURE: A-20

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-120 Truck Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.075895, -122.188521, Datum: WGS84

DATE STARTED: 11/10/2022
DATE COMPLETED: 11/10/2022
LOGGED BY: L. Cressler
SURFACE ELEVATION: 38.8 ± feet



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GeoSciences Inc.

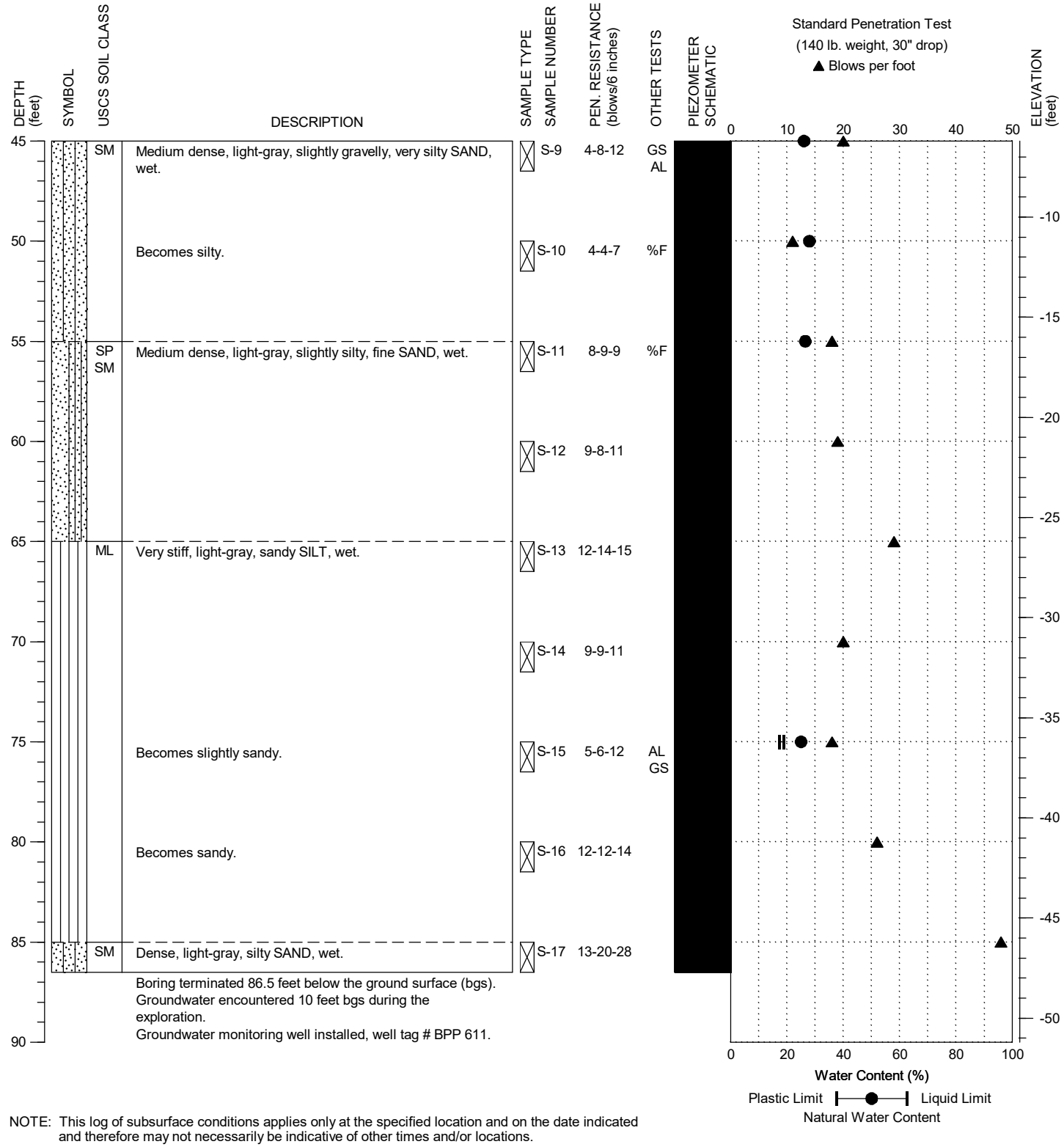
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-20P

PROJECT NO.: 2019-127-21 FIGURE: A-21

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Mud Rotary, D-120 Truck Rig
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: 48.075895, -122.188521, Datum: WGS84

DATE STARTED: 11/10/2022
DATE COMPLETED: 11/10/2022
LOGGED BY: L. Cressler
SURFACE ELEVATION: 38.8 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

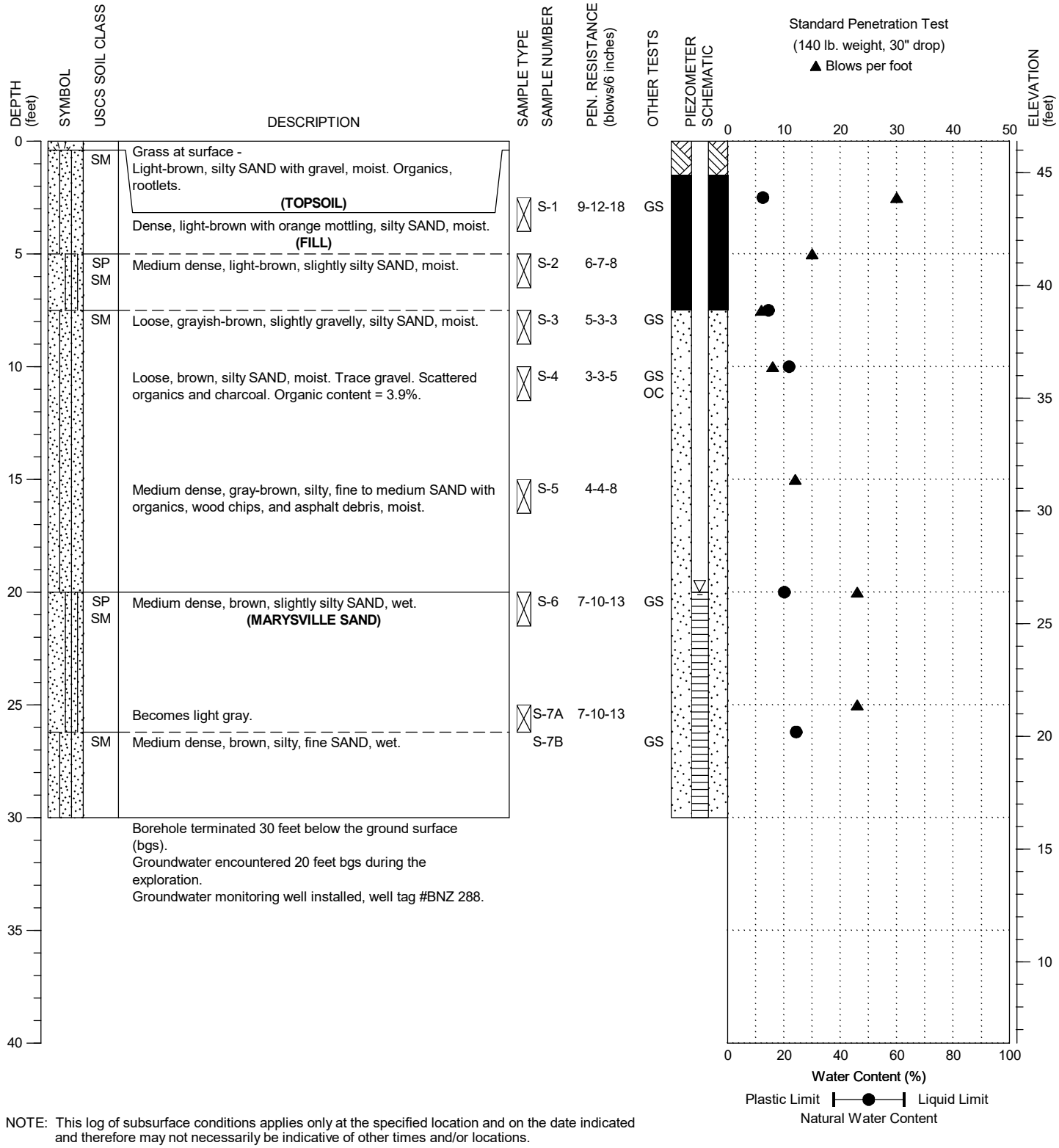
BORING:
HWA-20P

PROJECT NO.: 2019-127-21 FIGURE: A-21

PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/Rope and Cathead
LOCATION: 48.076024, -122.186467, Datum: WGS84

DATE STARTED: 2/7/2023
DATE COMPLETED: 2/7/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 46.4 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-21P

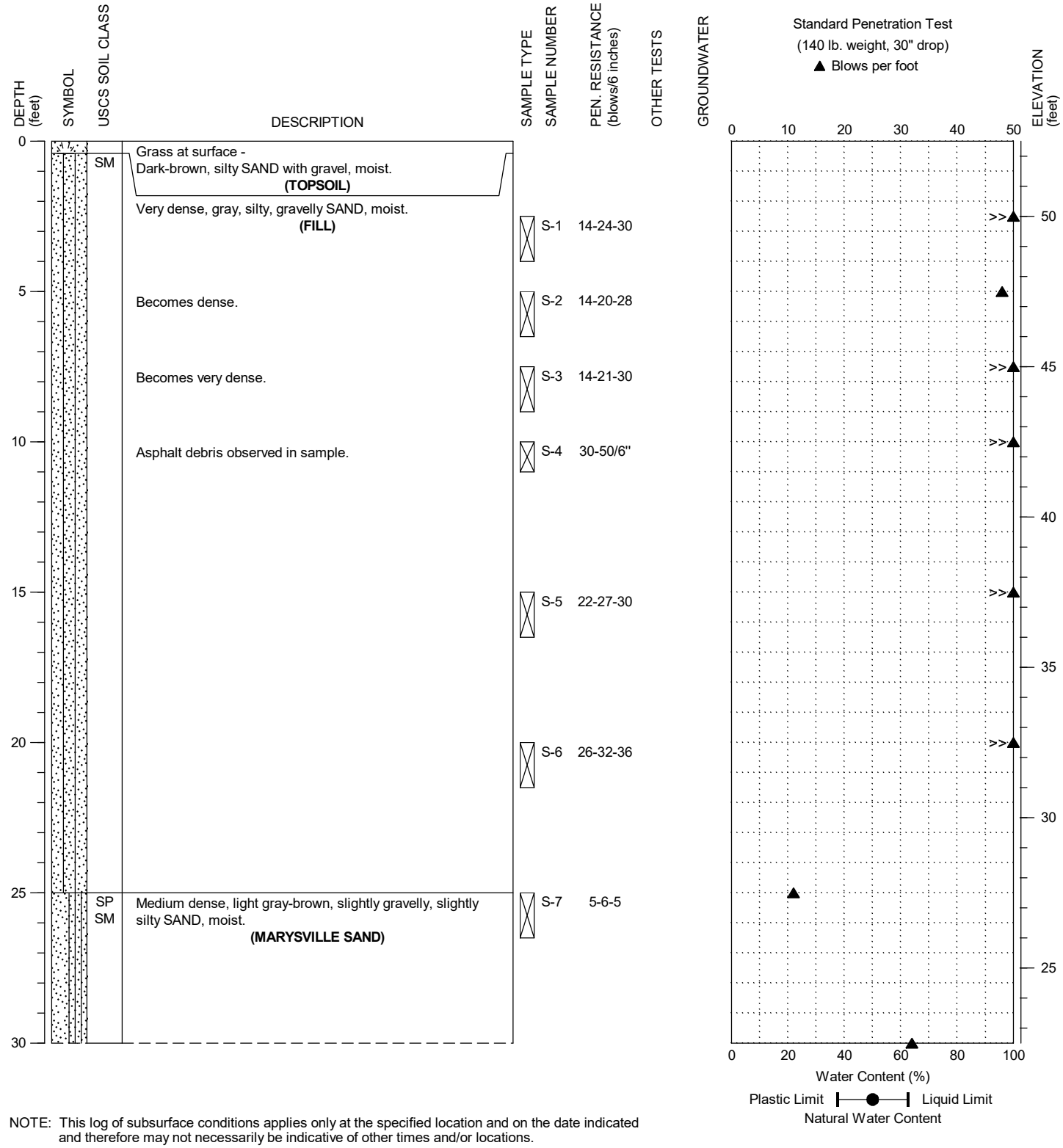
PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-22

PZO-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/Rope and Cathead
LOCATION: 48.075561, -122.184209, Datum: WGS84

DATE STARTED: 2/7/2023
DATE COMPLETED: 2/7/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 52.5 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-22

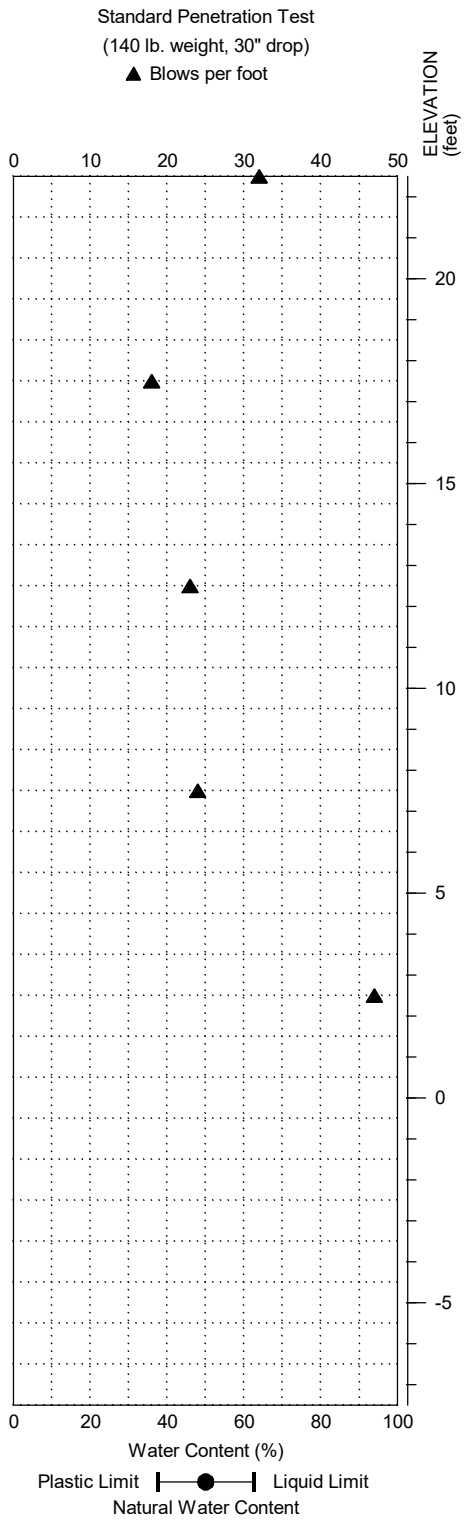
PROJECT NO.: 2019-127-21 FIGURE: A-23

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/Rope and Cathead
LOCATION: 48.075561, -122.184209, Datum: WGS84

DATE STARTED: 2/7/2023
DATE COMPLETED: 2/7/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 52.5 ± feet

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS
30		SP	Dense, light-gray, fine SAND, moist.		S-8	8-12-20	
35			Becomes medium dense.		S-9	7-8-10	
40					S-10	8-10-13	
45					S-11	8-9-15	
50			Becomes dense, light-gray-brown.		S-12	9-19-28	
55			Borehole terminated 51.5 feet below the ground surface (bgs). Groundwater encountered 50 feet bgs during the exploration. Borehole abandoned with 3/8" bentonite chips.				
60							

GROUNDWATER ▽



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-22

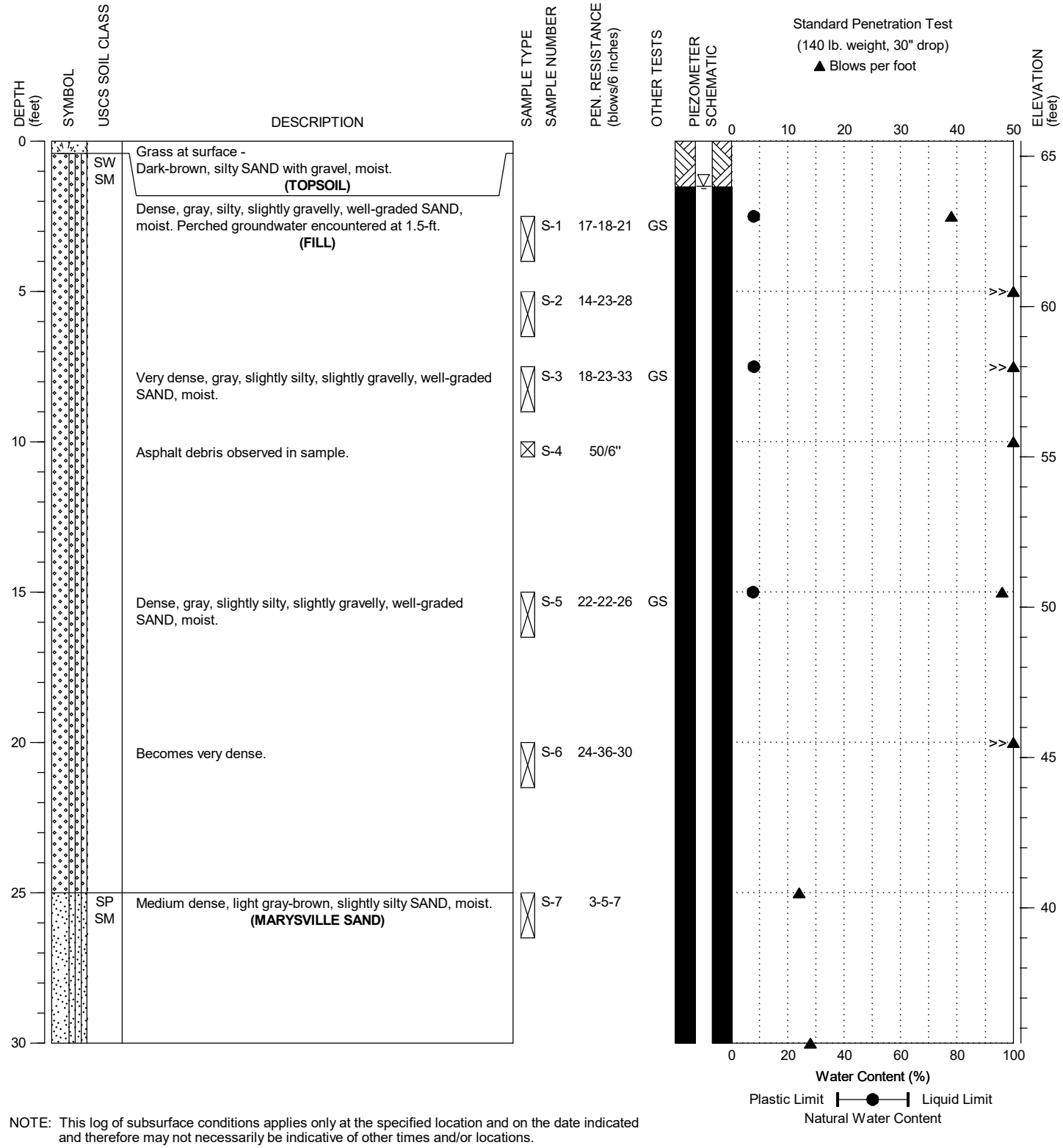
PAGE: 2 of 2

PROJECT NO.: 2019-127-21 FIGURE: A-23

BORING-DSM 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/Rope and Cathead
LOCATION: 48.075927, -122.184194, Datum: WGS84

DATE STARTED: 2/7/2023
DATE COMPLETED: 2/7/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 65.5 ± feet



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GeoSciences Inc.

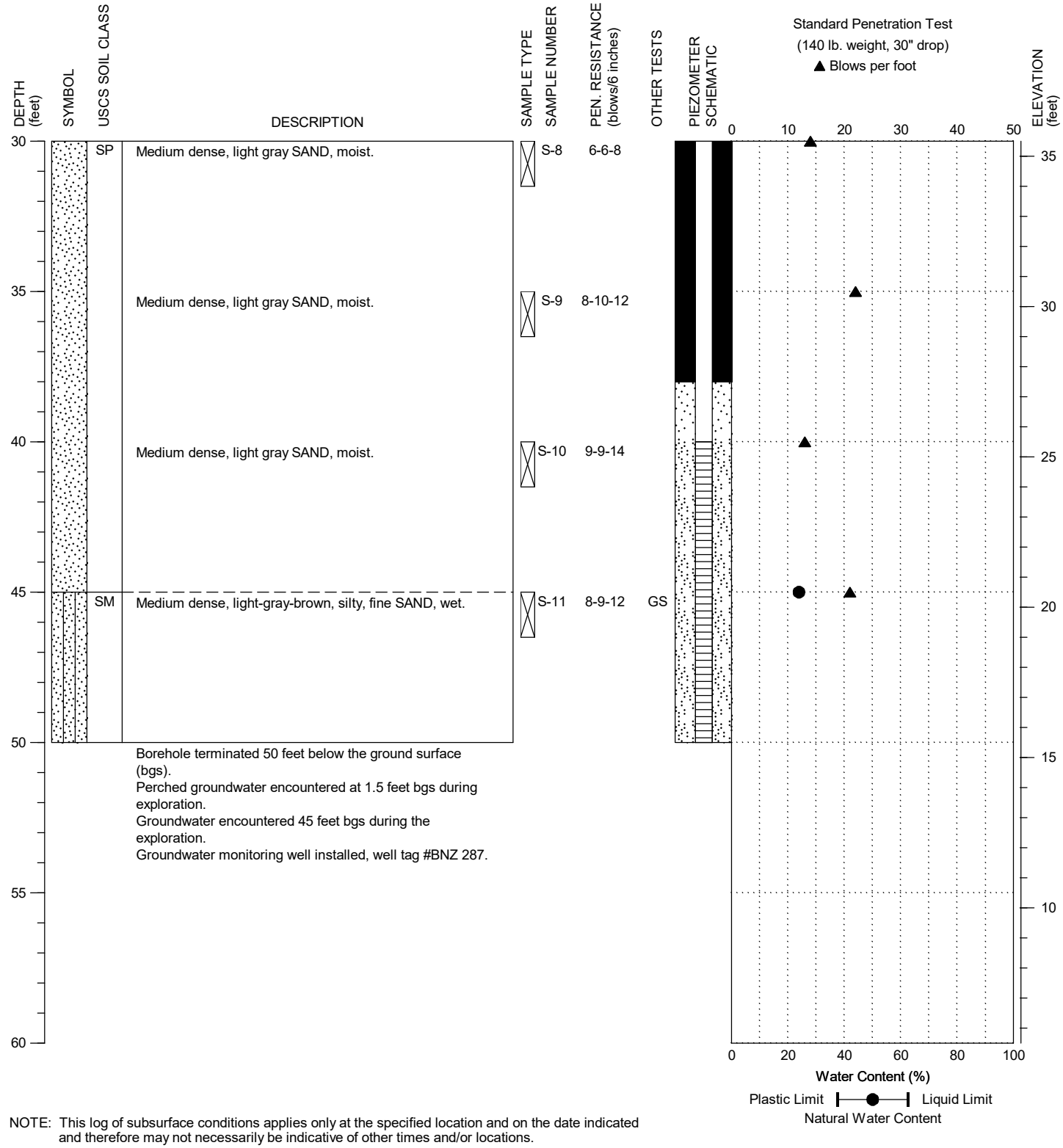
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-23P

PROJECT NO.: 2019-127-21 FIGURE: A-24

DRILLING COMPANY: Geologic Drill Partners
DRILLING METHOD: HSA, 2.25 ID, Limited Access Mini Bobcat Track Rig
SAMPLING METHOD: SPT w/Rope and Cathead
LOCATION: 48.075927, -122.184194, Datum: WGS84

DATE STARTED: 2/7/2023
DATE COMPLETED: 2/7/2023
LOGGED BY: L. Cressler
SURFACE ELEVATION: 65.5 ± feet



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GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

BORING:
HWA-23P

PROJECT NO.: 2019-127-21 FIGURE: A-24

EXCAVATION COMPANY: Northwest Excavation
EXCAVATING EQUIPMENT: Mini-Excavator

LOCATION: See Figure 2B
DATE COMPLETED: 10/24/22
LOGGED BY: L. Cressler

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT (%)	OTHER TESTS
0		GP GM	8-inches of dark brown, slightly silty GRAVEL, moist.				
		SM	**(CSBC)** Reddish-brown, silty SAND, moist. Scattered organics.		S-1		
			(FILL) Light olive-brown, slightly gravelly SAND, moist. **(MARYSVILLE SAND)**		S-2		
5		SP					
		GP GM	Brown, slightly silty GRAVEL, wet. 2-inch lens of gravel with perched water. Red mottling observed.				
			Olive brown, silty SAND, moist.		S-3	28	GS
10		SM					
15			PIT-1 terminated 12 feet below the ground surface (bgs). Perched, discontinuous groundwater encountered at 7 feet bgs. Infiltration test conducted at 4 feet bgs. PIT-1 backfilled with excavated soil.				

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

TEST PIT PHOTO

HWA GEOSCIENCES INC.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

LOG OF TEST PIT
PIT-1

PAGE: 1 of 1

PROJECT NO.: 2019-127-21 FIGURE: A-25

SMART TP 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

EXCAVATION COMPANY: Northwest Excavation
EXCAVATING EQUIPMENT: Mini-Excavator

LOCATION: See Figure 2B
DATE COMPLETED: 1/30/23
LOGGED BY: L. Cressler

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT (%)	OTHER TESTS
0		SM	Light brown, gravelly, silty SAND, moist. Scattered organics. **(TOPSOIL)**		S-1		
		SP SM	Gray, slightly silty, gravelly SAND, moist. **(FILL)**				
		SM	Reddish-brown, silty, gravelly SAND, moist.		S-2		
5					S-3		
		SP SM	Reddish-brown and gray, slightly silty SAND with interbedded lenses of silty sand, moist. **(MARYSVILLE SAND)**		S-4		
10			PIT-2 terminated 10 feet below the ground surface (bgs). Groundwater not encountered during excavation. Infiltration test conducted at 4 feet bgs. PIT-2 backfilled with excavated soil.				
15							

TEST PIT PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GEOSCIENCES INC.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

LOG OF TEST PIT PIT-2

PROJECT NO.: 2019-127-21 FIGURE: A-26

SMART TP 2019-127-21.GPJ 8/12/25
Library: Q:\LIBRARY\LIBRARY - BOTHELL BACKUP BACKUP.GLB

EXCAVATION COMPANY: Northwest Excavation
EXCAVATING EQUIPMENT: Mini-Excavator

LOCATION: See Figure 2B
DATE COMPLETED: 10/25/22
LOGGED BY: L. Cressler

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT (%)	OTHER TESTS
0		SM	Dark-brown, silty SAND, moist. Scattered organics. **(TOPSOIL)**				
		SM	Dark-brown, gravelly, silty SAND, moist. Construction debris in soil. Scattered organics. **(FILL)**				
		SM	Reddish-brown, silty SAND, moist. Slight red-mottling observed.				
5		SP SM	Grayish-brown, slightly silty SAND, moist. Silt lenses intermixed with red mottling. **(MARYSVILLE SAND)** Becomes yellowish-brown to reddish-brown. Red-mottling observed.	○	S-1	9	GS
10			PIT-3 terminated 9 feet below the ground surface (bgs) due to excessive caving in the pit sidewalls 8 to 9 feet bgs. Groundwater not encountered during excavation. Infiltration test conducted at 4.7 feet bgs. PIT-3 backfilled with excavated soil.				
15							

TEST PIT PHOTO

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HWA GEOSCIENCES INC.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

LOG OF TEST PIT
PIT-3

PROJECT NO.: 2019-127-21 FIGURE: A-27

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 33rd Ave NE, NB, 2' from curb

LOCATION: See Figure 3A
DATE COMPLETED: 2/16/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			7-inches Hot Mix Asphalt. 2 lifts: 4" x 3" No cracking at core location. Lifts are unbonded.				
			Dense, light brown, GRAVEL with silt and sand, moist. **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-1

PROJECT NO.: 2019-127-21 FIGURE: A-28

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: Marine Dr NE, EB, 3' from curb

LOCATION: See Figure 3A
DATE COMPLETED: 2/16/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			9-inches Hot Mix Asphalt. 4 lifts: 2" x 2" x 2" x 3" No cracking at core location. Lifts are bonded.				
			Medium Dense, gray, poorly graded, silty SAND, with subrounded gravel **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-2

PROJECT NO.: 2019-127-21 FIGURE: A-29

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 4th St, EB, 1.75' from curb

LOCATION: See Figure 2A
DATE COMPLETED: 3/13/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			11-inches Hot Mix Asphalt. 5 lifts: 2.75" x 1.75" x 2.25" x 2" x 2.25" No cracking at core location. Some low-severity rutting. Lifts were bonded and in good condition.				
			Dense, olive gray, Crushed Surfacing Base Course **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-3

PROJECT NO.: 2019-127-21 FIGURE: A-30

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: Marine Dr NE, WB, 3' from curb

LOCATION: See Figure 3A
DATE COMPLETED: 2/16/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			12-inches Hot Mix Asphalt. 5 lifts: 2.5" x 2.5" x 2.5" x 2.5" x 2" No cracking at core location. Lifts are bonded.				
			Dense, light brown, GRAVEL with silt and sand, moist. **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-4

PROJECT NO.: 2019-127-21 FIGURE: A-31

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 88th St NE, EB, 2.5 from fog line

LOCATION: See Figure 3B
DATE COMPLETED: 2/17/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			10-inches Hot Mix Asphalt. 5 lifts: 1" x 3" x 2" x 3" x 1" No cracking at core location. Lifts are unbonded between lifts 2 and 3 at depth of 4" below surface.				
			Dense, light brown, GRAVEL with silt and sand, moist. **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-5

PROJECT NO.: 2019-127-21 FIGURE: A-32

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 88th St NE, WB, 7' from curb, core location moved 4.5 feet east due to utility conflicts at marked location.

LOCATION: See Figure 3B
DATE COMPLETED: 2/16/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			8-inches Hot Mix Asphalt. 3 lifts: 2" x 3" x 3" Cored on a crack. All lifts are unbonded, cracking present in top lift.				
			Dense, light brown, GRAVEL with silt and sand, moist. **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-6

PROJECT NO.: 2019-127-21 FIGURE: A-33

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 88th St NE, EB, 2' from fog line

LOCATION: See Figure 3B
DATE COMPLETED: 2/17/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			12-inches Hot Mix Asphalt. 4 lifts: 2" x 4" x 3" x 3" Cored on location of a crack. Top lift is cracking and is unbonded from below lifts.				
3			Dense, light brown, GRAVEL with silt and sand, moist. **(FILL)**				
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-7

PROJECT NO.: 2019-127-21 FIGURE: A-34

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 88th St NE, WB, 3' from curb

LOCATION: See Figure 2B
DATE COMPLETED: 3/13/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			10.5-inches Hot Mix Asphalt. 4 lifts: 1.75" x 1.75" x 3.25" x 3.75" No cracking at core location. Third lift was unbonded from fourth.				
3			Dense, olive gray, Crushed Surfacing Base Course. **(FILL)**				
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-8

PROJECT NO.: 2019-127-21 FIGURE: A-35

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 34th Ave NE, SB, 4' from curb

LOCATION: See Figure 2B
DATE COMPLETED: 3/13/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			5.25-inches Hot Mix Asphalt. 3 lifts: 2" x 1.75" x 1.5" No cracking at core location. All lifts bonded and in good condition.				
			Dense, olive gray, Crushed Surfacing Base Course. **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-9

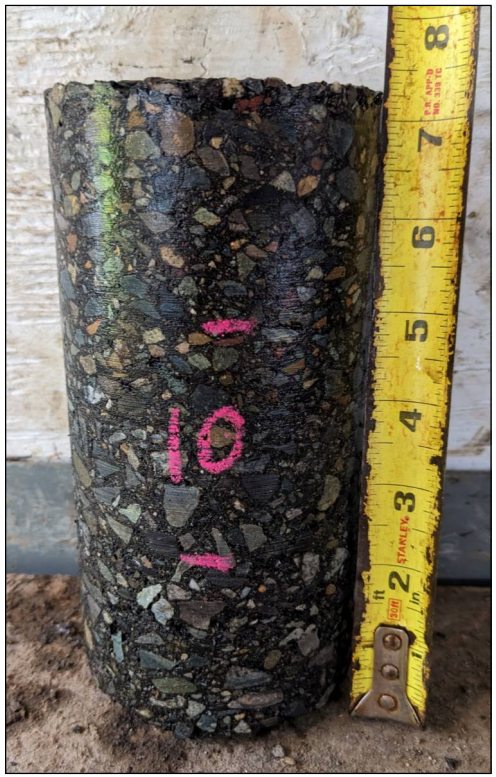
PROJECT NO.: 2019-127-21 FIGURE: A-36

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 36th Ave NE, NB, 2' from fog line

LOCATION: See Figure 2B
DATE COMPLETED: 3/13/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			7.25-inches Hot Mix Asphalt. 3 lifts: 2.25" x 2.5" x 2.5" Some cracking adjacent to core location. Void in the east side of the core at 4" below road grade. Lifts are bonded and in good condition.				
3			Dense, olive gray, Crushed Surfacing Base Course. **(FILL)**				
6							
9							
12							
15							

PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-10

PROJECT NO.: 2019-127-21 FIGURE: A-37

EXCAVATION COMPANY: HWA GeoSciences Inc.
EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
STREET: 33rd Ave NE, NB, 2.5' from fog line

LOCATION: See Figure 2A
DATE COMPLETED: 3/13/23
LOGGED BY: I. Wiken

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			6.5-inches Hot Mix Asphalt. 3 lifts: 2.5" x 1.75" x 2.25" No cracking at core location. Bottom lift was unbonded and cracked. Second lift cracked 1-inch from bottom.				
			Dense, olive gray, Crushed Surfacing Base Course. **(FILL)**				
3							
6							
9							
12							
15							

PAVEMENT CORE PHOTO

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PAVEMENT CORE
Core-11

PROJECT NO.: 2019-127-21 FIGURE: A-38

APPENDIX B

LABORATORY PROGRAM

APPENDIX B

LABORATORY PROGRAM

Representative soil samples obtained from our explorations were placed in plastic bags to prevent loss of moisture and transported to our Bothell, Washington, laboratory for further examination and testing. Laboratory tests were conducted on selected soil samples to characterize relevant engineering and index properties of the site soils. Summary tables of the index testing are presented n Figures B-1 through B-4. Laboratory testing was conducted as described below:

MOISTURE CONTENT OF SOIL: The moisture content of selected soil samples (percent by dry mass) was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate summary logs in Appendix A.

PARTICLE SIZE ANALYSIS OF SOILS: Selected samples were tested to determine the particle (grain) size distribution of material in general accordance with ASTM D 422. The results are summarized on the attached Particle Size Analysis of Soils report, Figures B-5 through B-28, which also provide information regarding the classification of the sample, and the moisture content at the time of testing.

ATTERBERG LIMITS: Selected samples were tested to determine the Atterberg Limits using method ASTM D 4318, multi-point method. The results are reported on the attached Liquid Limit, Plastic Limit and Plasticity Index reports, Figure B-29.

DIRECT SHEAR: A direct shear test was conducted on selected samples, in general accordance with ASTM D 3080. The results of these tests are presented on the attached Direct Shear Strength of Soils reports, Figures B-30 through B-33. The apparent cohesion and friction angle of the soils are inferred from a least-squares linear regression of the test points.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
HWA- 1,S-1	2.5	4.0	16.8						9.5	73.4	17.1	SM	Dark brown, silty SAND
HWA- 1,S-2	5.0	6.5	31.0						0.9	76.7	22.5	SM	Very dark grayish-brown, silty SAND
HWA- 1,S-5	12.5	14.0	40.9						3.4	91.2	5.4	SP-SM	Dark grayish-brown, poorly graded SAND with silt
HWA- 2,S-4	10.0	11.5	17.6						20.7	63.5	15.8	SM	Dark grayish-brown, silty SAND with gravel
HWA- 2,S-6	15.0	16.5	36.9						1.8	82.4	15.7	SM	Dark grayish-brown, silty SAND
HWA- 2,S-10	30.0	31.5	29.0							48.0	52.0	ML	Dark grayish-brown, sandy SILT
HWA- 2,S-12	40.0	41.5	31.0						1.3	48.3	50.3	ML	Dark grayish-brown, sandy SILT
HWA- 3,S-8	20.0	21.5	35.9						0.1	85.6	14.4	SM	Olive-brown, silty SAND
HWA- 3,S-10	30.0	31.5	29.6							76.2	23.8	SM	Olive-brown, silty SAND
HWA- 3,S-13	45.0	46.5	33.0							42.5	57.5	ML	Dark gray, sandy SILT
HWA- 3,S-15	55.0	56.5	28.9						0.9	64.3	34.8	SM	Dark gray, silty SAND
HWA- 3,S-17	65.0	66.5	31.3							21.5	78.5	ML	Dark gray, SILT with sand
HWA- 3,S-23	95.0	96.5	35.9			42	27	15			98.0	ML	Dark gray, SILT
HWA- 4P,S-1	2.5	4.0	11.8						30.5	57.6	11.8	SW-SM	Olive-brown, well-graded SAND with silt and gravel
HWA- 4P,S-3	7.5	9.0	27.4						10.8	70.6	18.7	SM	Very dark grayish-brown, silty SAND
HWA- 4P,S-8	20.0	21.5	32.8							30.3	69.7	ML	Dark gray, sandy SILT
HWA- 4P,S-13	45.0	46.5	31.2							43.9	56.1	ML	Dark gray, sandy SILT
HWA- 5,S-9	45.0	46.5	54.4						2.2	91.5	6.2	SP-SM	Very dark grayish-brown, poorly graded SAND with silt
HWA- 5,S-12	60.0	61.5	26.2							35.3	64.7	ML	Dark gray, sandy SILT
HWA- 5,S-15	75.0	76.5	28.8						0.1	21.9	78.0	ML	Dark gray, SILT with sand

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
HWA- 5,S-19	95.0	96.5	29.9			32	25	7			91.0	ML	Gray, SILT
HWA- 6,S-1	2.5	4.0	3.0						3.4	93.7	2.9	SP	Light olive-brown, poorly graded SAND
HWA- 6,S-3	7.5	9.0	5.8							88.9	11.1	SP-SM	Light olive-brown, poorly graded SAND with silt
HWA- 6,S-5	12.5	14.0	11.1							92.0	8.0	SP-SM	Strong brown, poorly graded SAND with silt
HWA- 6,S-7	17.5	19.0	7.7							88.3	11.7	SP-SM	Light olive-brown, poorly graded SAND with silt
HWA- 7,S-3	5.0	6.5	9.0						28.5	41.8	29.7	SM	Dark gray, silty SAND with gravel
HWA- 7,S-5	10.0	11.5	10.0						4.1	55.3	40.6	SM	Gray, silty SAND
HWA- 7,S-8	17.5	19.0	16.4						3.2	84.9	11.9	SW-SM	Very dark grayish-brown, well-graded SAND with silt
HWA- 8,S-1	2.5	4.0	15.4						1.5	86.1	12.4	SM	Strong brown, silty SAND
HWA- 8,S-5	12.5	14.0	8.8						1.6	91.2	7.3	SP-SM	Light olive-brown, poorly graded SAND with silt
HWA- 8,S-7	17.5	19.0	7.0						1.1	95.4	3.5	SP	Olive-brown, poorly graded SAND
HWA- 9P,S-1	2.5	4.0	11.2						0.4	95.6	4.1	SP	Olive-brown, poorly graded SAND
HWA- 9P,S-3	7.5	9.0	21.5						0.4	77.5	22.2	SM	Light olive-brown, silty SAND
HWA- 9P,S-5	12.5	14.0	13.9							86.9	13.1	SM	Grayish-brown, silty SAND
HWA- 9P,S-7	17.5	19.0	5.8						0.1	95.4	4.4	SP	Grayish-brown, poorly graded SAND
HWA-10,S-2	5.0	6.5	7.3						3.4	90.0	6.7	SP-SM	Light olive-brown, poorly graded SAND with silt
HWA-10,S-4	10.0	11.5	8.2						0.2	91.9	7.9	SP-SM	Grayish-brown, poorly graded SAND with silt
HWA-11,S-3	5.0	6.5	9.6						1.9	93.3	4.8	SP	Olive-brown, poorly graded SAND
HWA-11,S-4	7.5	9.0	19.7						0.8	95.0	4.1	SP	Dark grayish-brown, poorly graded SAND
HWA-12,S-2	5.0	6.5	18.1						0.1	81.9	18.0	SM	Brown, silty SAND

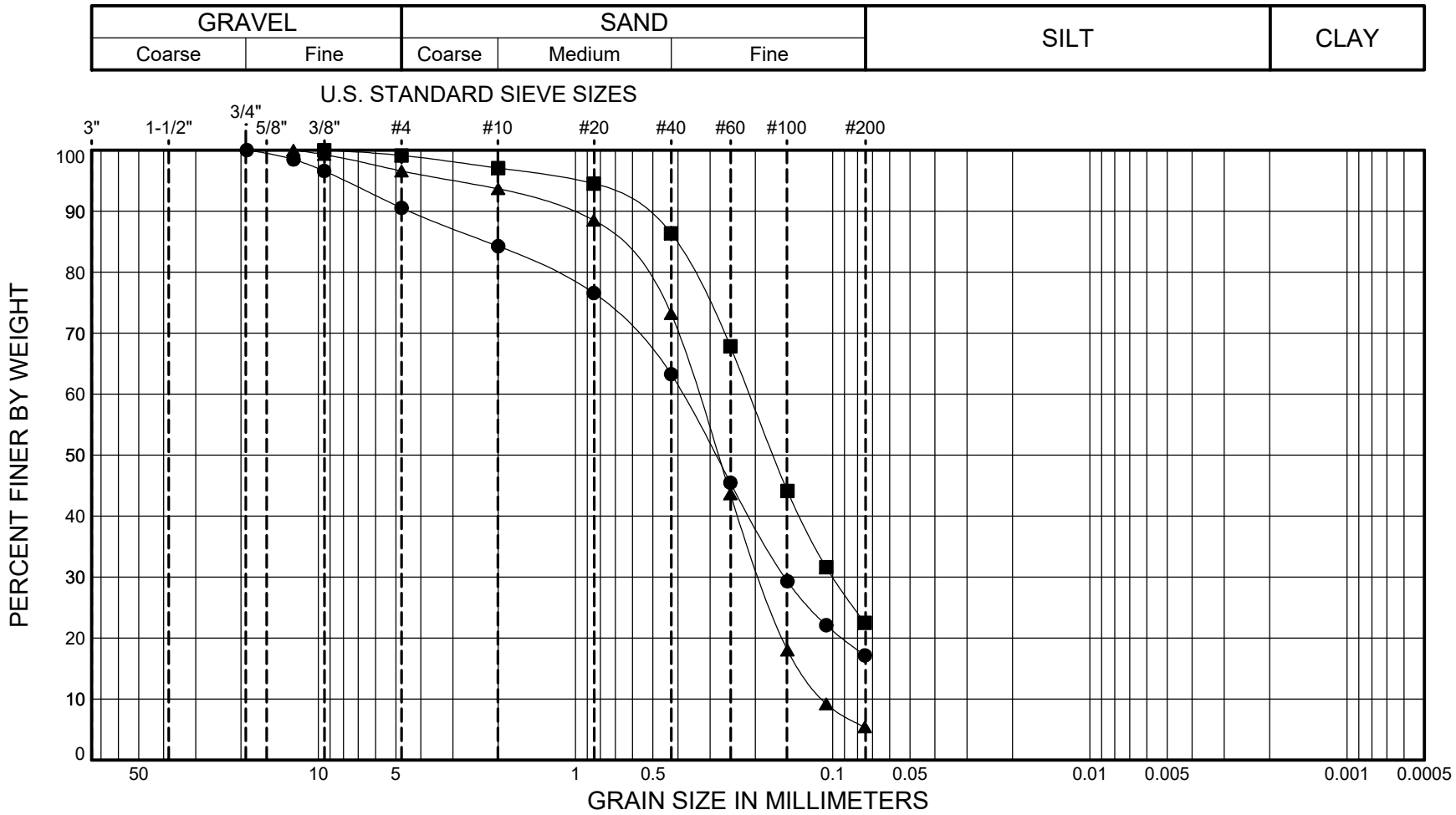
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
HWA-12,S-5	12.5	14.0	23.9						0.1	95.9	4.0	SP	Gray, poorly graded SAND
HWA-13P,S-3	7.5	9.0	17.8						0.1	97.8	2.1	SP	Dark grayish-brown, poorly graded SAND
HWA-14,S-1	2.5	4.0	18.0						1.9	86.7	11.4	SP-SM	Grayish-brown, poorly graded SAND with silt
HWA-14,S-2	5.0	6.5	8.3							94.2	5.8	SP-SM	Light olive-brown, poorly graded SAND with silt
HWA-14,S-4	10.0	11.5	6.5						1.3	95.5	3.2	SP	Grayish-brown, poorly graded SAND
HWA-15P,S-1	2.5	4.0	8.0							96.2	3.8	SP	Grayish-brown, poorly graded SAND
HWA-15P,S-2	5.0	6.5	7.1						4.0	94.2	1.8	SP	Grayish-brown, poorly graded SAND
HWA-16,S-1	2.5	4.0	7.5						0.1	97.7	2.2	SP	Grayish-brown, poorly graded SAND
HWA-16,S-3	7.5	9.0	22.2						1.3	96.1	2.6	SP	Dark grayish-brown, poorly graded SAND
HWA-17,S-1	2.5	4.0	6.7						0.5	96.6	2.9	SP	Light olive-brown, poorly graded SAND
HWA-17,S-3	7.5	9.0	23.1						0.2	95.7	4.1	SP	Dark grayish-brown, poorly graded SAND
HWA-18P,S-1	2.5	4.0	17.4						1.0	80.3	18.7	SM	Dark yellowish-brown, silty SAND
HWA-18P,S-2	5.0	6.5	9.1							98.5	1.5	SP	Dark olive-brown, poorly graded SAND
HWA-18P,S-4	10.0	11.5	6.5						1.0	91.4	7.6	SP-SM	Dark olive-gray, poorly graded SAND with silt
HWA-20P,S-5	25.0	26.5	57.3	9.0								SM	Dark grayish-brown, silty SAND with organics
HWA-20P,S-6	30.0	31.5	23.0	0.8						87.5	12.5	SM	Very dark gray, silty SAND
HWA-20P,S-7	35.0	36.5	24.7						2.1	66.2	31.6	SM	Very dark gray, silty SAND
HWA-20P,S-8	40.0	41.5	33.8						1.8	49.0	49.2	SM	Dark gray, silty SAND
HWA-20P,S-9	45.0	46.5	26.0			NP	NP	NP	7.4	48.7	43.9	SM	Dark grayish-brown, silty SAND
HWA-20P,S-10	50.0	51.5	27.9								21.2	SM	Very dark gray, silty SAND

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
HWA-20P,S-11	55.0	56.5	26.4								7.5	SP-SM	Very dark gray, poorly graded SAND with silt
HWA-20P,S-15	75.0	76.5	24.9			18	17	1		7.6	92.3	ML	Gray, SILT
HWA-21P,S-1	2.5	4.0	12.4						1.2	82.0	16.8	SM	Dark brown, silty SAND
HWA-21P,S-3	7.5	9.0	14.4						10.7	73.7	15.6	SM	Very dark grayish-brown, silty SAND
HWA-21P,S-4	10.0	11.5	21.7	3.9					3.5	75.5	21.0	SM	Very dark brown, silty SAND
HWA-21P,S-6	20.0	21.5	20.0						0.0	94.1	5.3	SP-SM	Very dark gray, poorly graded SAND with silt
HWA-21P,S-7B	26.2	26.5	24.2						0.0	84.1	15.8	SM	Dark brown, silty SAND
HWA-23P,S-1	2.5	4.0	7.8						23.4	66.2	10.4	SW-SM	Very dark gray, well graded SAND with silt and gravel
HWA-23P,S-3	7.5	9.0	7.9						10.1	79.5	10.4	SW-SM	Very dark gray, well graded SAND with silt
HWA-23P,S-5	15.0	16.5	7.5						16.6	71.8	11.6	SW-SM	Very dark gray, well graded SAND with silt and gravel
HWA-23P,S-11	45.0	46.5	23.8						0.8	85.0	14.3	SM	Dark grayish-brown, silty SAND
PIT-1,S-3	8.5	9.0	27.7							74.1	25.9	SM	Olive-brown, silty SAND
PIT-3,S-1	4.4	4.8	9.4						0.3	94.2	5.5	SP-SM	Yellowish-brown, poorly graded SAND with silt

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.



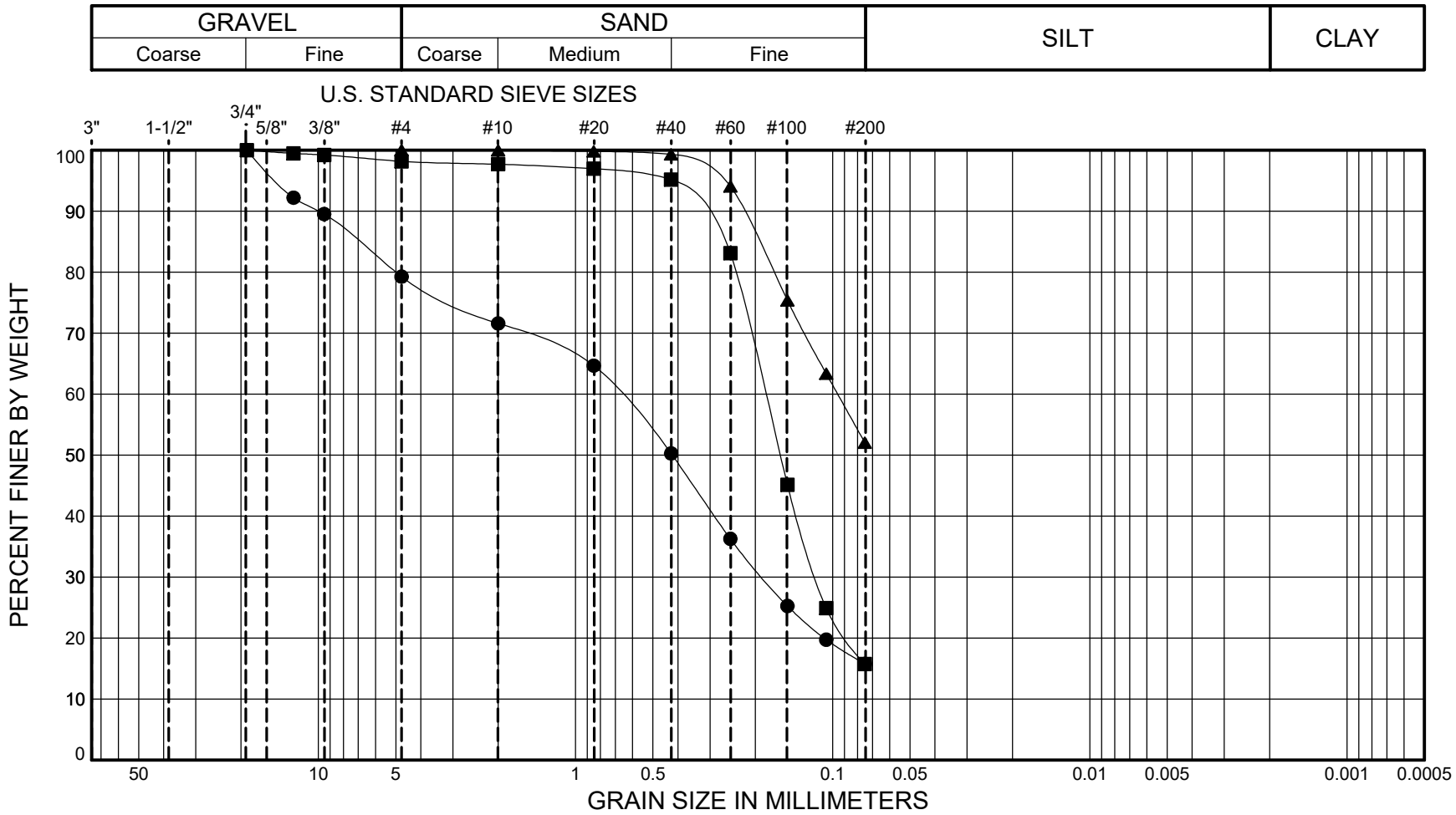
SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 1	S-1	2.5 - 4.0	(SM) Dark brown, silty SAND	17				9.5	73.4	17.1
■	HWA- 1	S-2	5.0 - 6.5	(SM) Very dark grayish-brown, silty SAND	31				0.9	76.7	22.5
▲	HWA- 1	S-5	12.5 - 14.0	(SP-SM) Dark grayish-brown, poorly graded SAND with silt	41				3.4	91.2	5.4

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-5



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 2	S-4	10.0 - 11.5	(SM) Dark grayish-brown, silty SAND with gravel	18				20.7	63.5	15.8
■	HWA- 2	S-6	15.0 - 16.5	(SM) Dark grayish-brown, silty SAND	37				1.8	82.4	15.7
▲	HWA- 2	S-10	30.0 - 31.5	(ML) Dark grayish-brown, sandy SILT	29					48.0	52.0

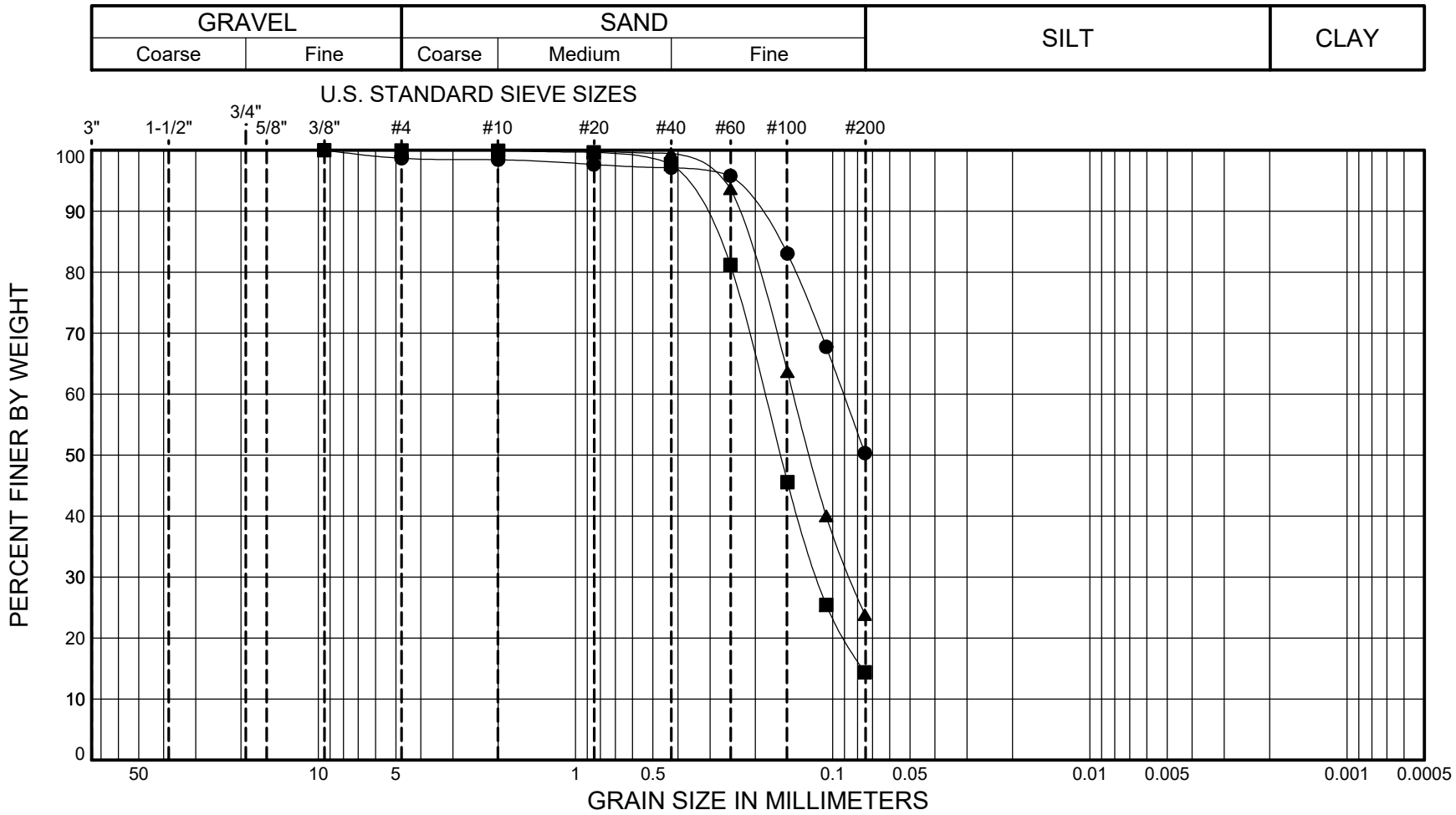
HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-6

HWAGRSZ 2019-127-21.GPJ 7/12/23



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 2	S-12	40.0 - 41.5	(ML) Dark grayish-brown, sandy SILT	31				1.3	48.3	50.3
■	HWA- 3	S-8	20.0 - 21.5	(SM) Olive-brown, silty SAND	36				0.1	85.6	14.4
▲	HWA- 3	S-10	30.0 - 31.5	(SM) Olive-brown, silty SAND	30					76.2	23.8

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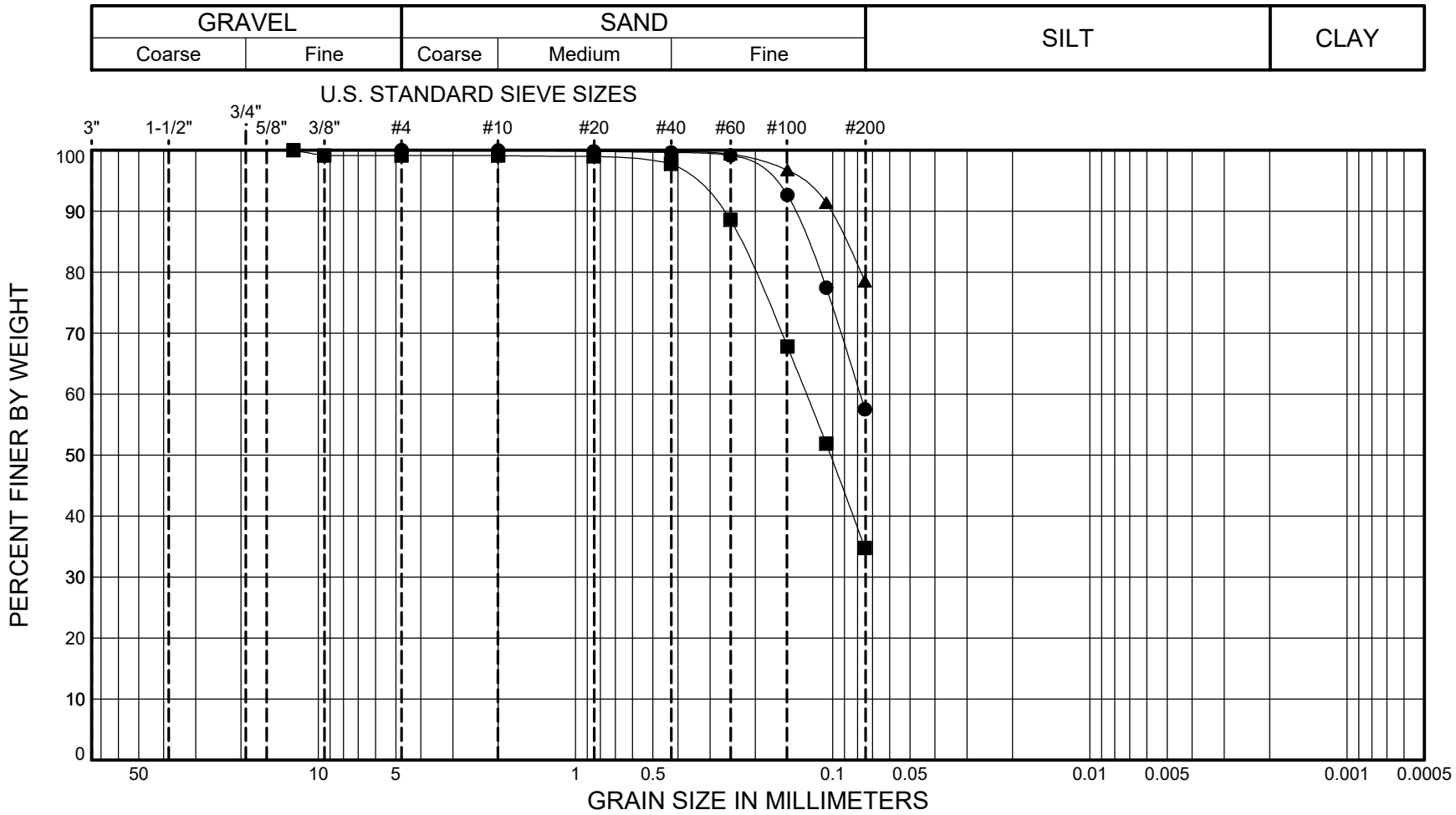
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-7

HWAGRSZ 2019-127-21.GPJ 7/12/23



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 3	S-13	45.0 - 46.5	(ML) Dark gray, sandy SILT	33					42.5	57.5
■	HWA- 3	S-15	55.0 - 56.5	(SM) Dark gray, silty SAND	29				0.9	64.3	34.8
▲	HWA- 3	S-17	65.0 - 66.5	(ML) Dark gray, SILT with sand	31					21.5	78.5

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I-5/4th Street and 88th Street NE
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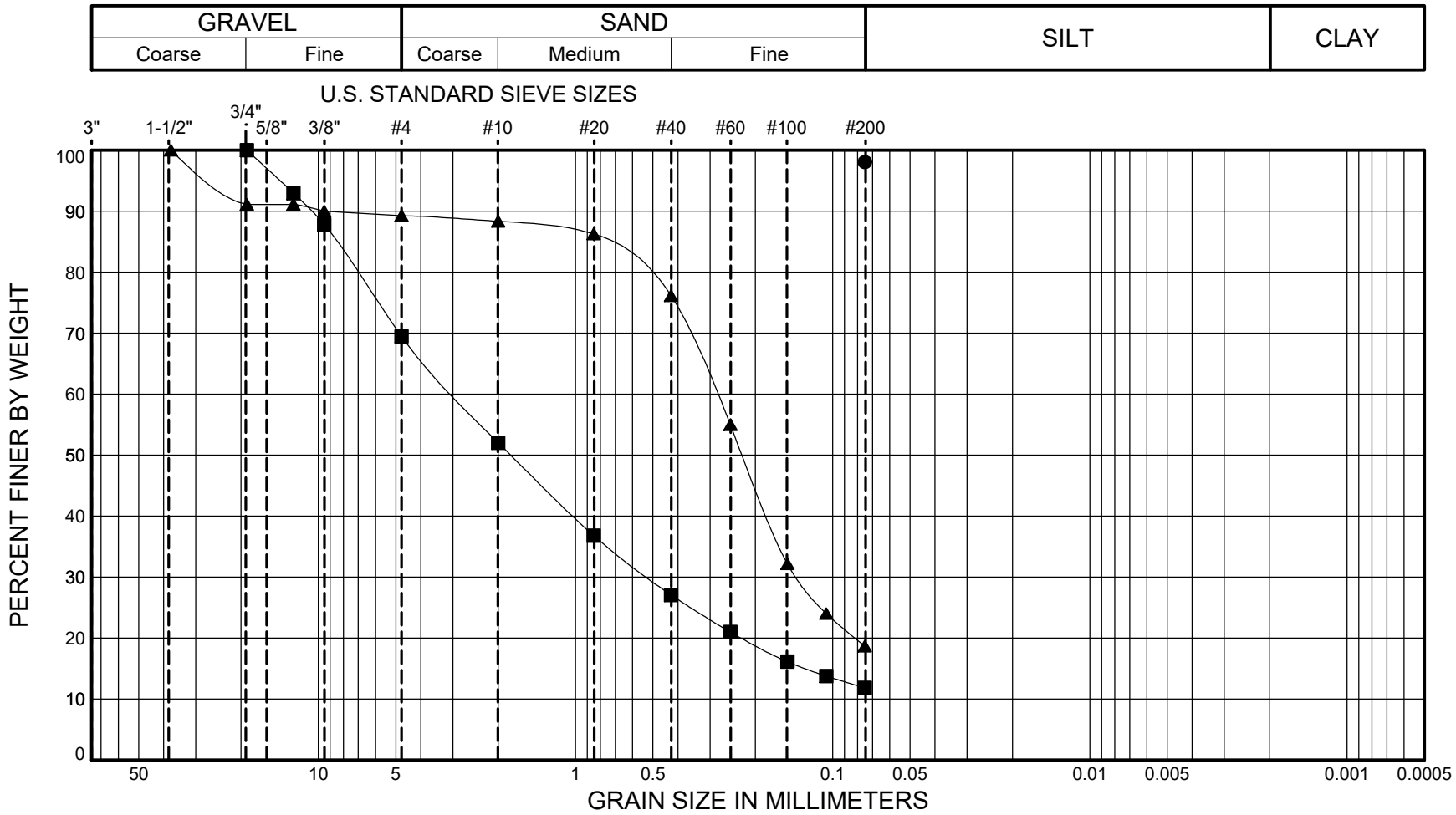
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-8



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 3	S-23	95.0 - 96.5	(ML) Dark gray, SILT	36	42	27	15			98.0
■	HWA- 4p	S-1	2.5 - 4.0	(SW-SM) Olive-brown, well-graded SAND with silt and gravel	12				30.5	57.6	11.8
▲	HWA- 4p	S-3	7.5 - 9.0	(SM) Very dark grayish-brown, silty SAND	27				10.8	70.6	18.7

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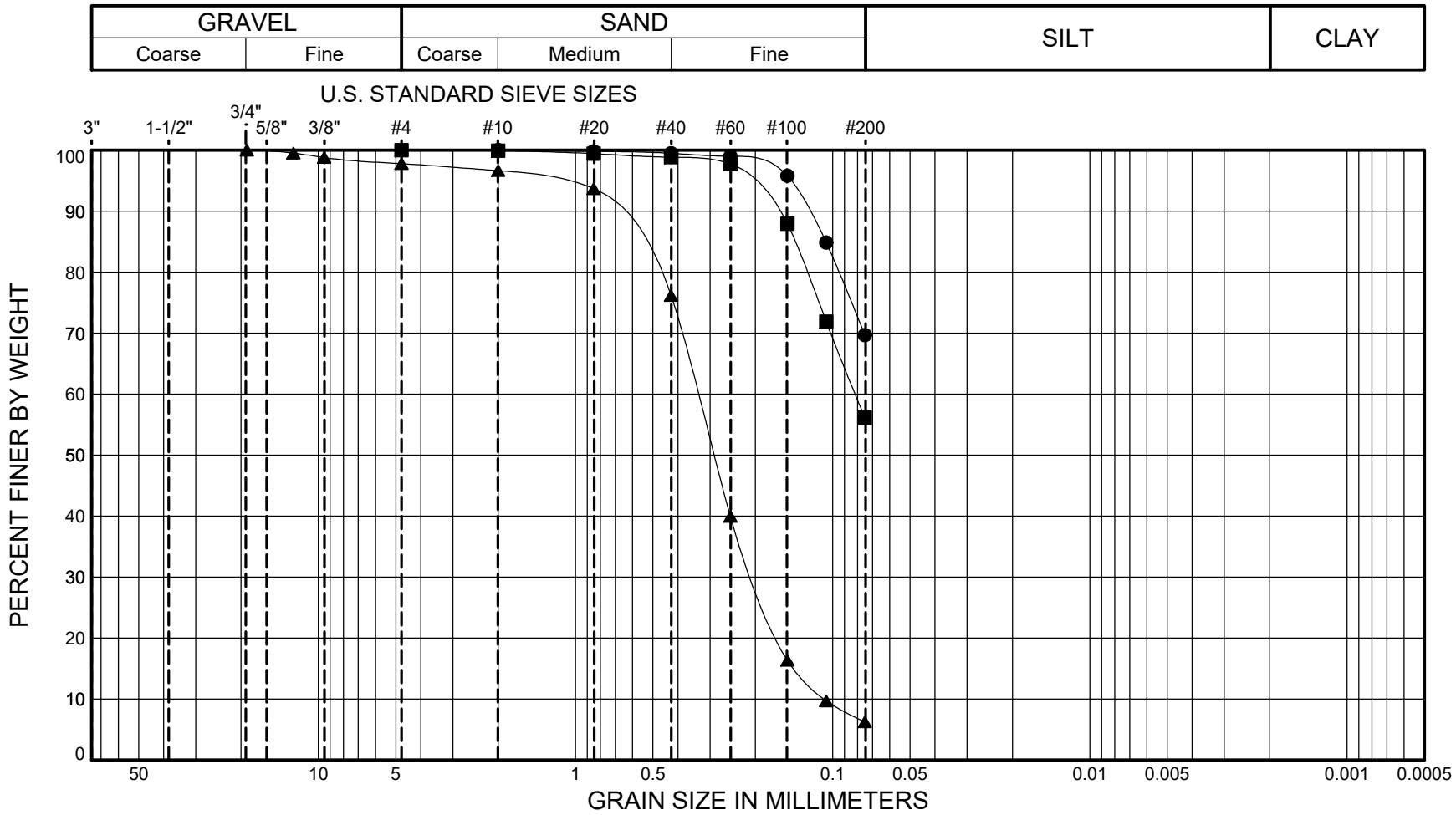
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-9



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 4p	S-8	20.0 - 21.5	(ML) Dark gray, sandy SILT	33					30.3	69.7
■	HWA- 4p	S-13	45.0 - 46.5	(ML) Dark gray, sandy SILT	31					43.9	56.1
▲	HWA- 5	S-9	45.0 - 46.5	(SP-SM) Very dark grayish-brown, poorly graded SAND with silt	54				2.2	91.5	6.2

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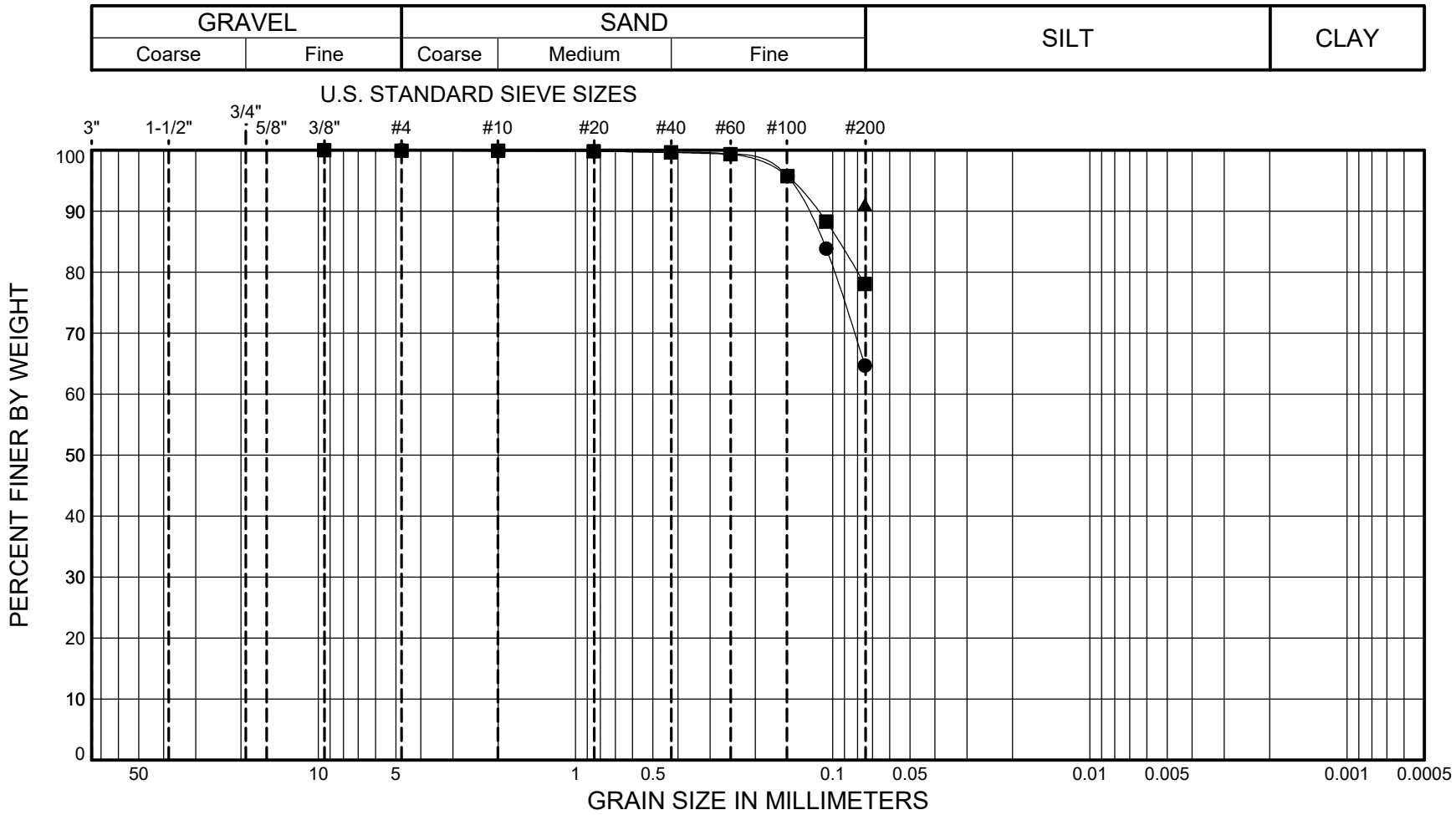
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-10



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 5	S-12	60.0 - 61.5	(ML) Dark gray, sandy SILT	26					35.3	64.7
■	HWA- 5	S-15	75.0 - 76.5	(ML) Dark gray, SILT with sand	29				0.1	21.9	78.0
▲	HWA- 5	S-19	95.0 - 96.5	(ML) Gray, SILT	30	32	25	7			91.0

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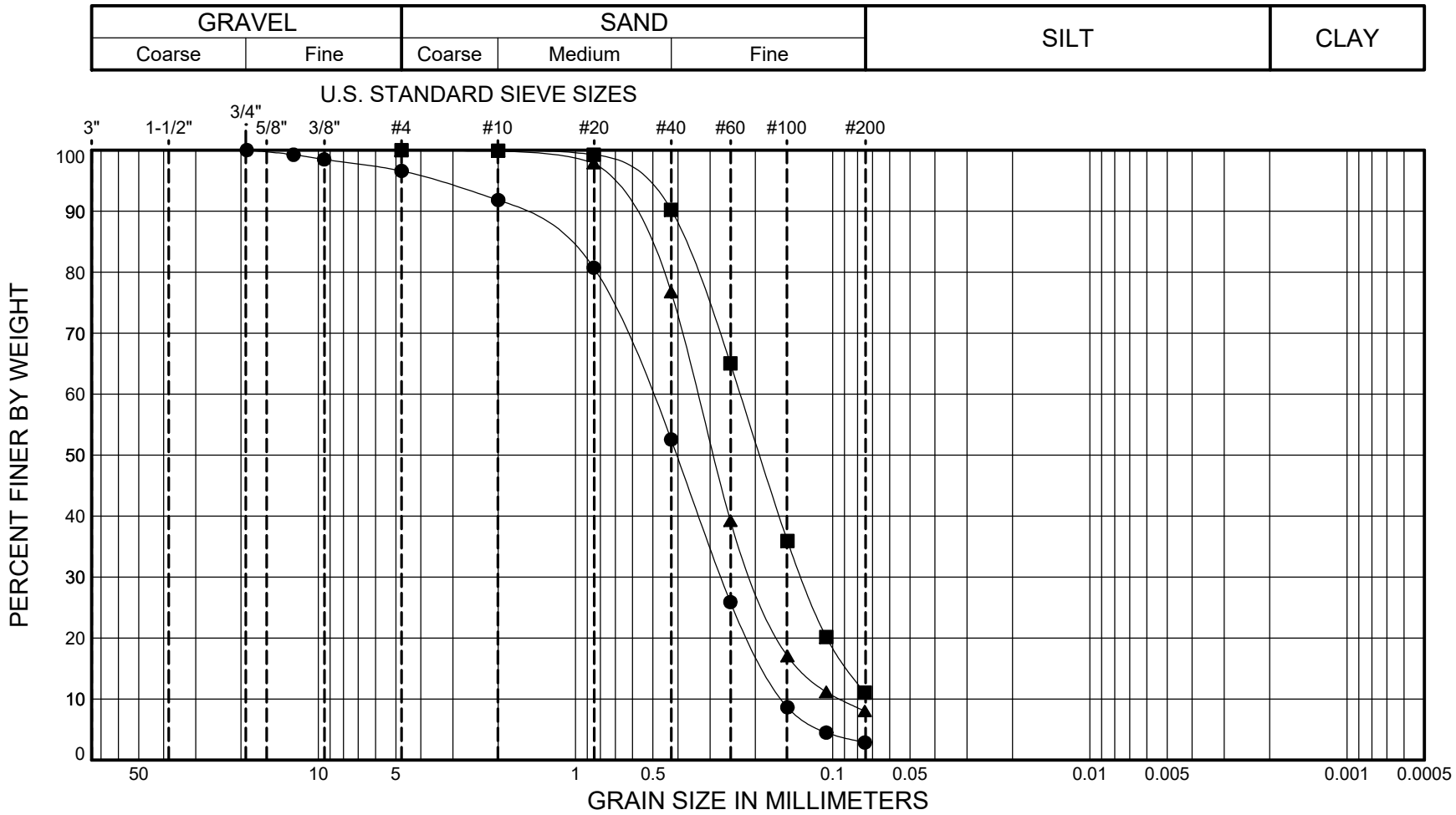
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-11



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 6	S-1	2.5 - 4.0	(SP) Light olive-brown, poorly graded SAND	3				3.4	93.7	2.9
■	HWA- 6	S-3	7.5 - 9.0	(SP-SM) Light olive-brown, poorly graded SAND with silt	6					88.9	11.1
▲	HWA- 6	S-5	12.5 - 14.0	(SP-SM) Strong brown, poorly graded SAND with silt	11					92.0	8.0

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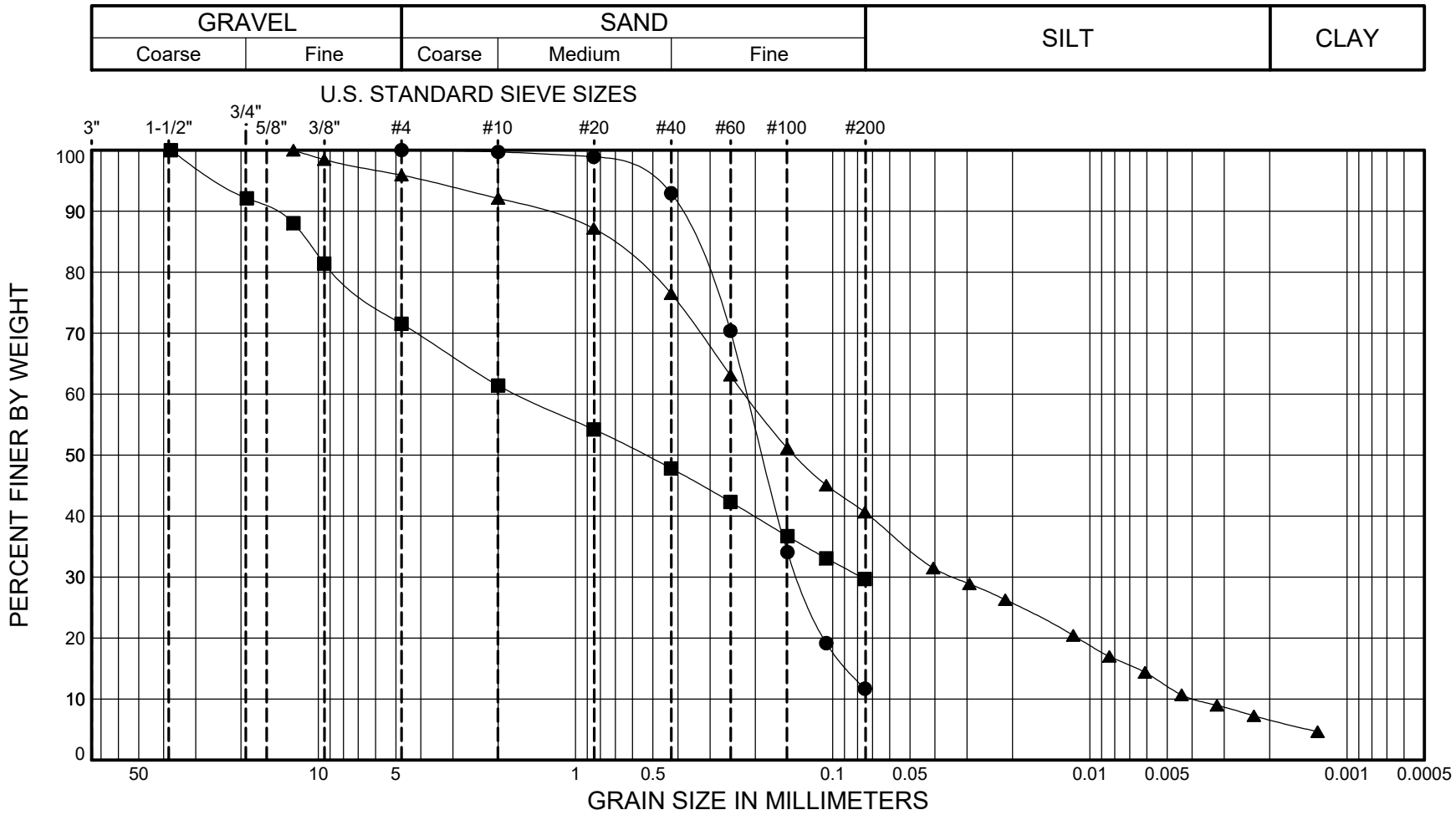
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-12



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 6	S-7	17.5 - 19.0	(SP-SM) Light olive-brown, poorly graded SAND with silt	8					88.3	11.7
■	HWA- 7	S-3	5.0 - 6.5	(SM) Dark gray, silty SAND with gravel	9				28.5	41.8	29.7
▲	HWA- 7	S-5	10.0 - 11.5	(SM) Gray, silty SAND	10				4.1	55.3	40.6

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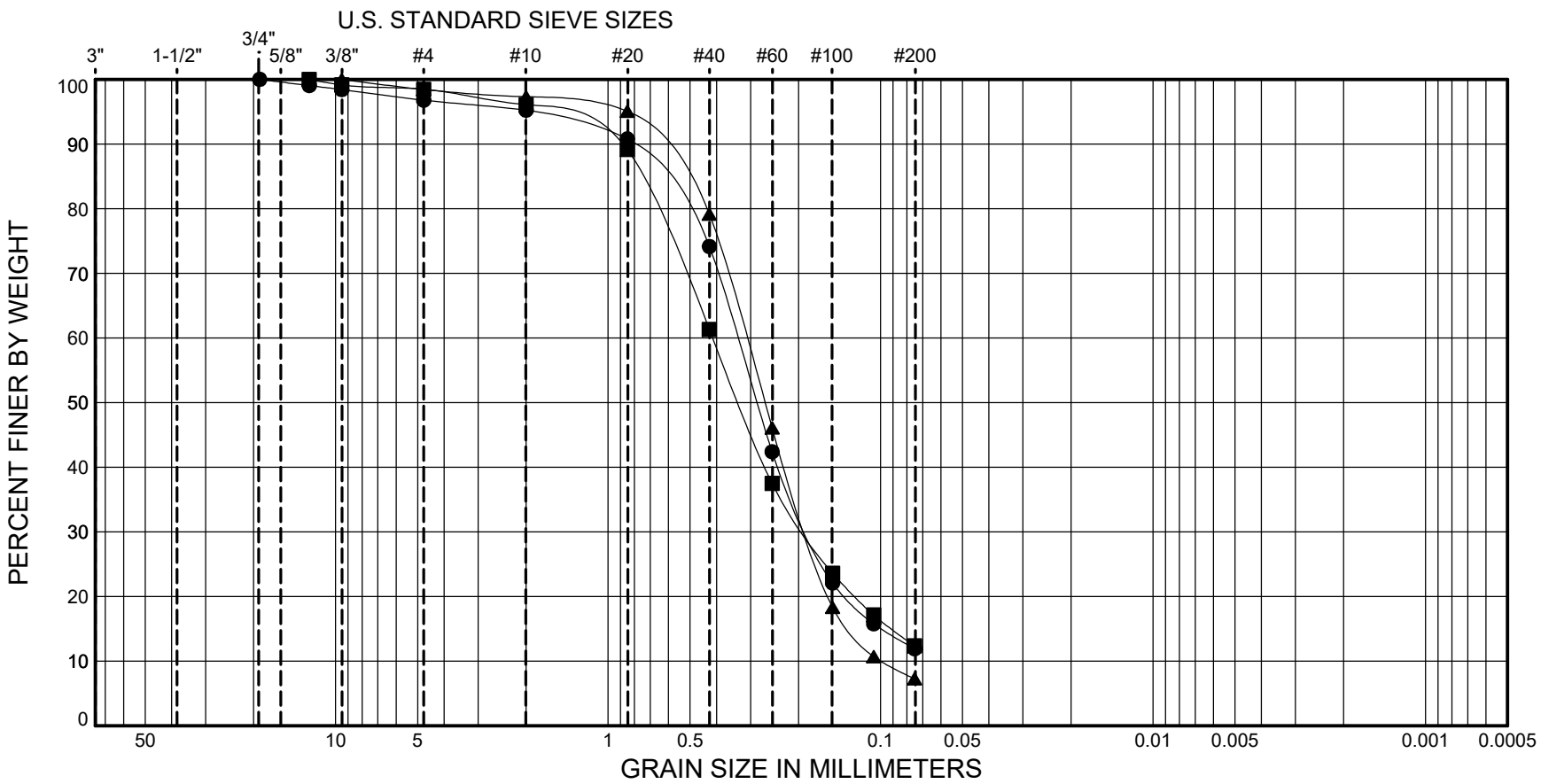
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-13

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 7	S-8	17.5 - 19.0	(SW-SM) Very dark grayish-brown, well-graded SAND with silt	16				3.2	84.9	11.9
■	HWA- 8	S-1	2.5 - 4.0	(SM) Strong brown, silty SAND	15				1.5	86.1	12.4
▲	HWA- 8	S-5	12.5 - 14.0	(SP-SM) Light olive-brown, poorly graded SAND with silt	9				1.6	91.2	7.3

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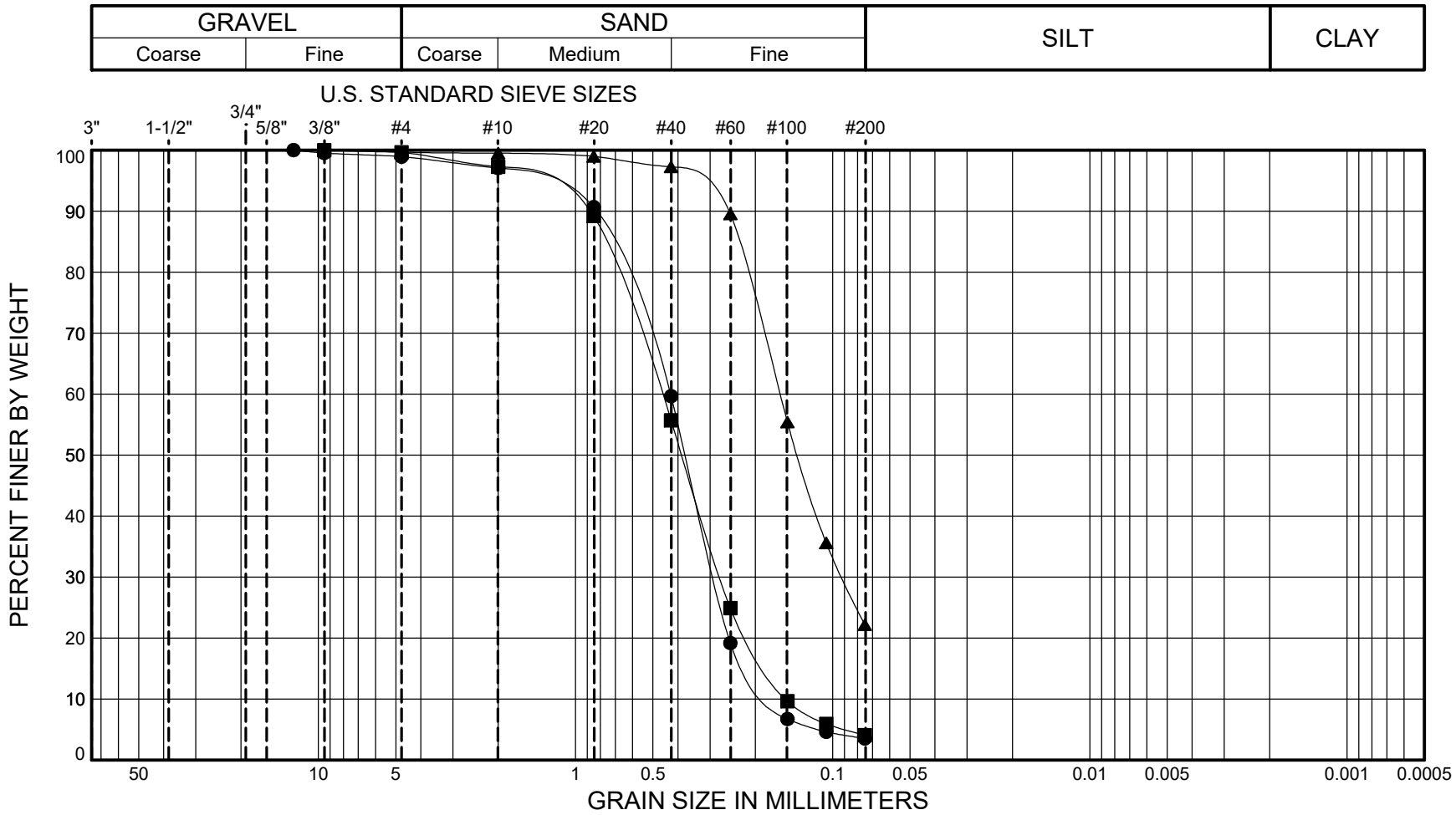
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-14



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 8	S-7	17.5 - 19.0	(SP) Olive-brown, poorly graded SAND	7				1.1	95.4	3.5
■	HWA- 9p	S-1	2.5 - 4.0	(SP) Olive-brown, poorly graded SAND	11				0.4	95.6	4.1
▲	HWA- 9p	S-3	7.5 - 9.0	(SM) Light olive-brown, silty SAND	22				0.4	77.5	22.2

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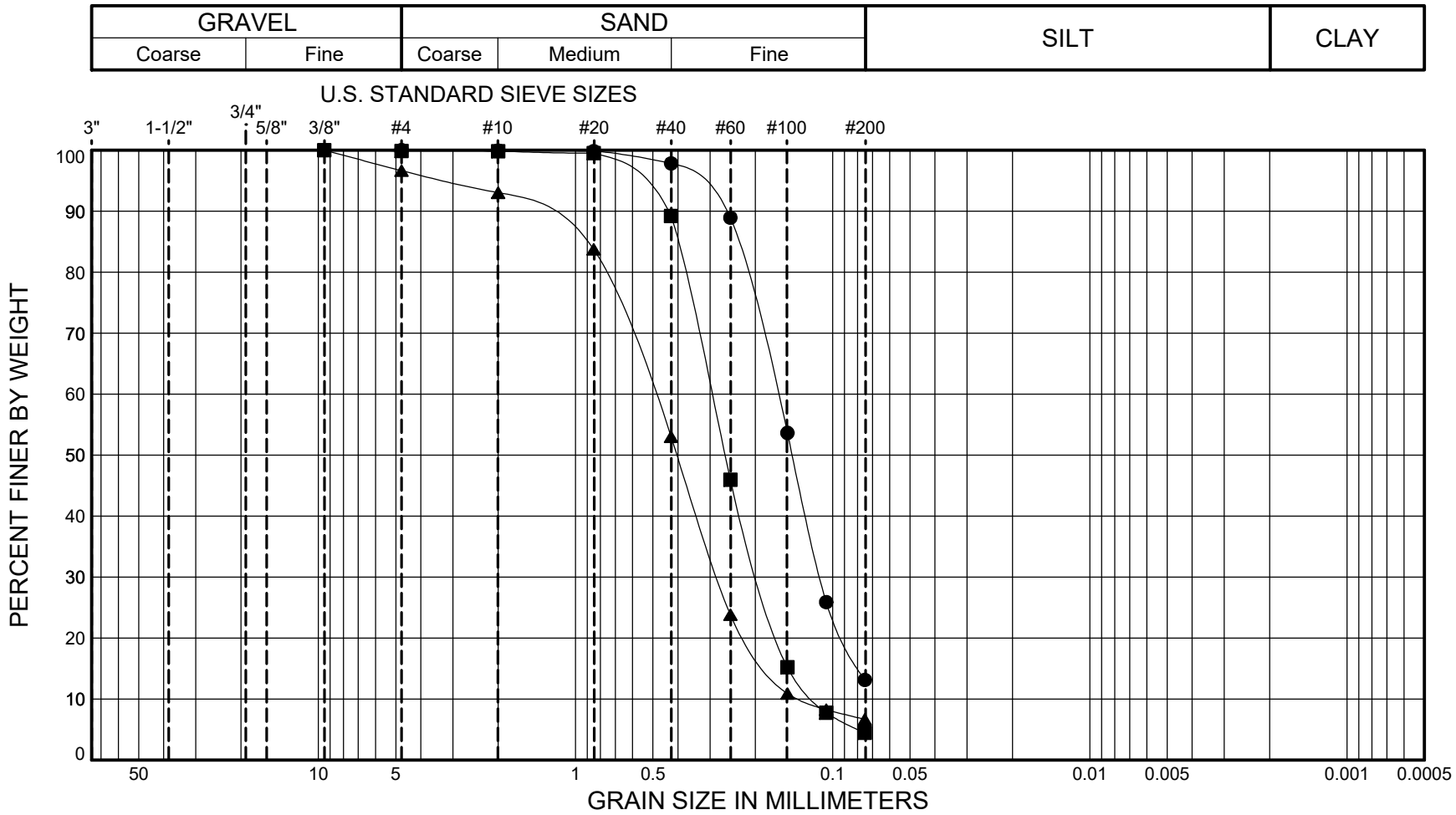
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-15



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA- 9p	S-5	12.5 - 14.0	(SM) Grayish-brown, silty SAND	14					86.9	13.1
■	HWA- 9p	S-7	17.5 - 19.0	(SP) Grayish-brown, poorly graded SAND	6				0.1	95.4	4.4
▲	HWA-10	S-2	5.0 - 6.5	(SP-SM) Light olive-brown, poorly graded SAND with silt	7				3.4	90.0	6.7

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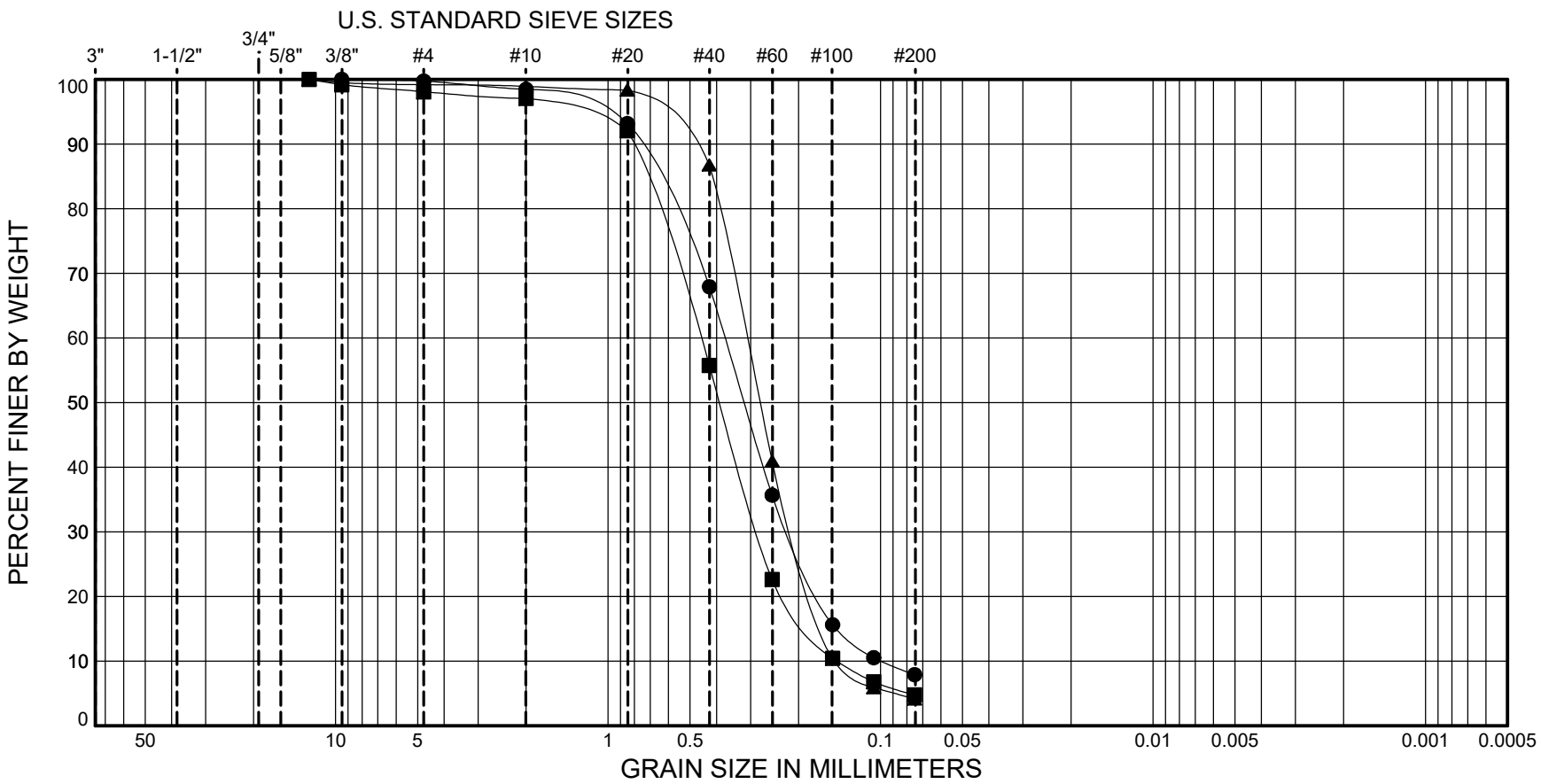
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-16

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-10	S-4	10.0 - 11.5	(SP-SM) Grayish-brown, poorly graded SAND with silt	8				0.2	91.9	7.9
■	HWA-11	S-3	5.0 - 6.5	(SP) Olive-brown, poorly graded SAND	10				1.9	93.3	4.8
▲	HWA-11	S-4	7.5 - 9.0	(SP) Dark grayish-brown, poorly graded SAND	20				0.8	95.0	4.1

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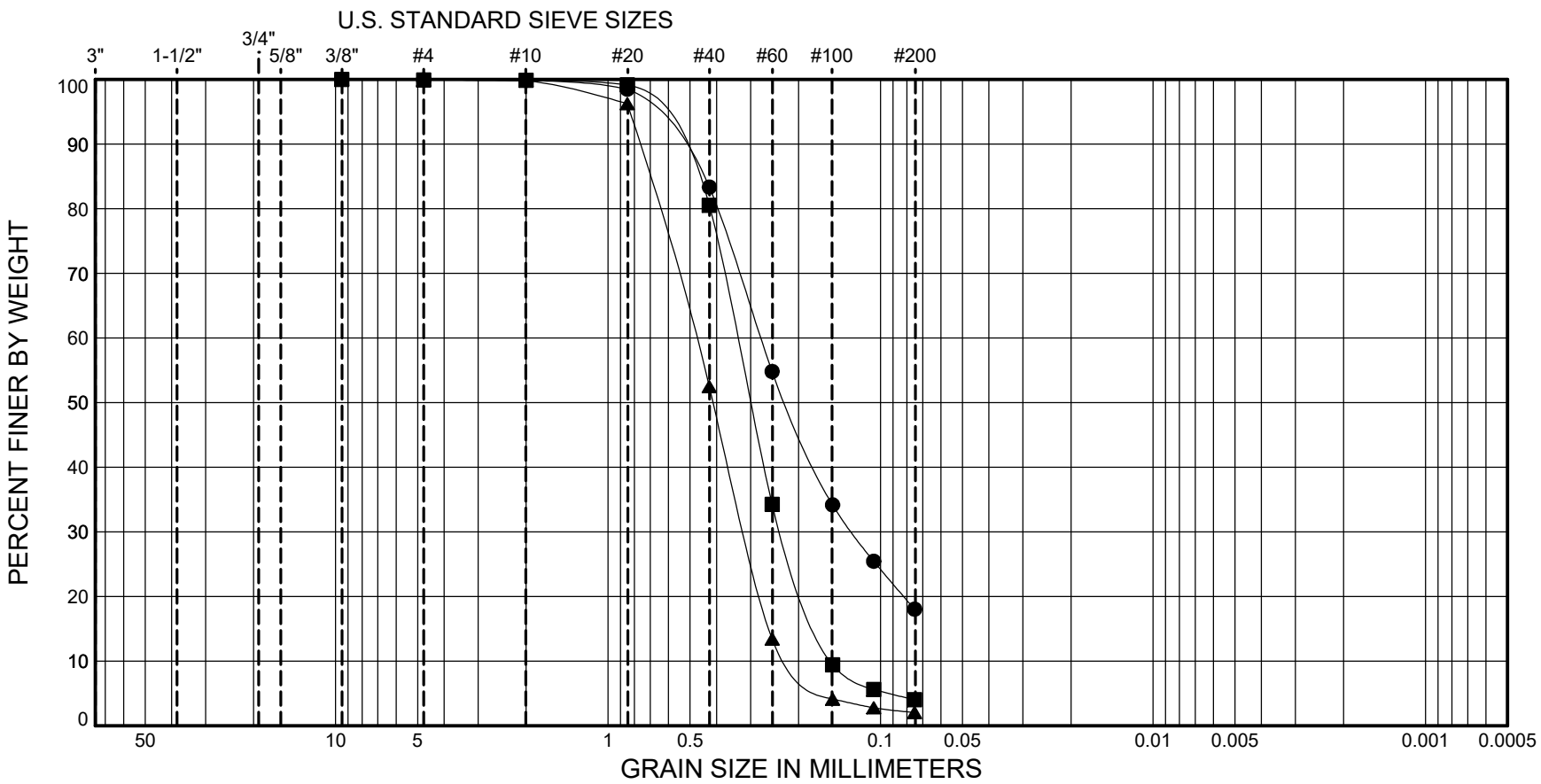
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-17

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-12	S-2	5.0 - 6.5	(SM) Brown, silty SAND	18				0.1	81.9	18.0
■	HWA-12	S-5	12.5 - 14.0	(SP) Gray, poorly graded SAND	24				0.1	95.9	4.0
▲	HWA-13p	S-3	7.5 - 9.0	(SP) Dark grayish-brown, poorly graded SAND	18				0.1	97.8	2.1

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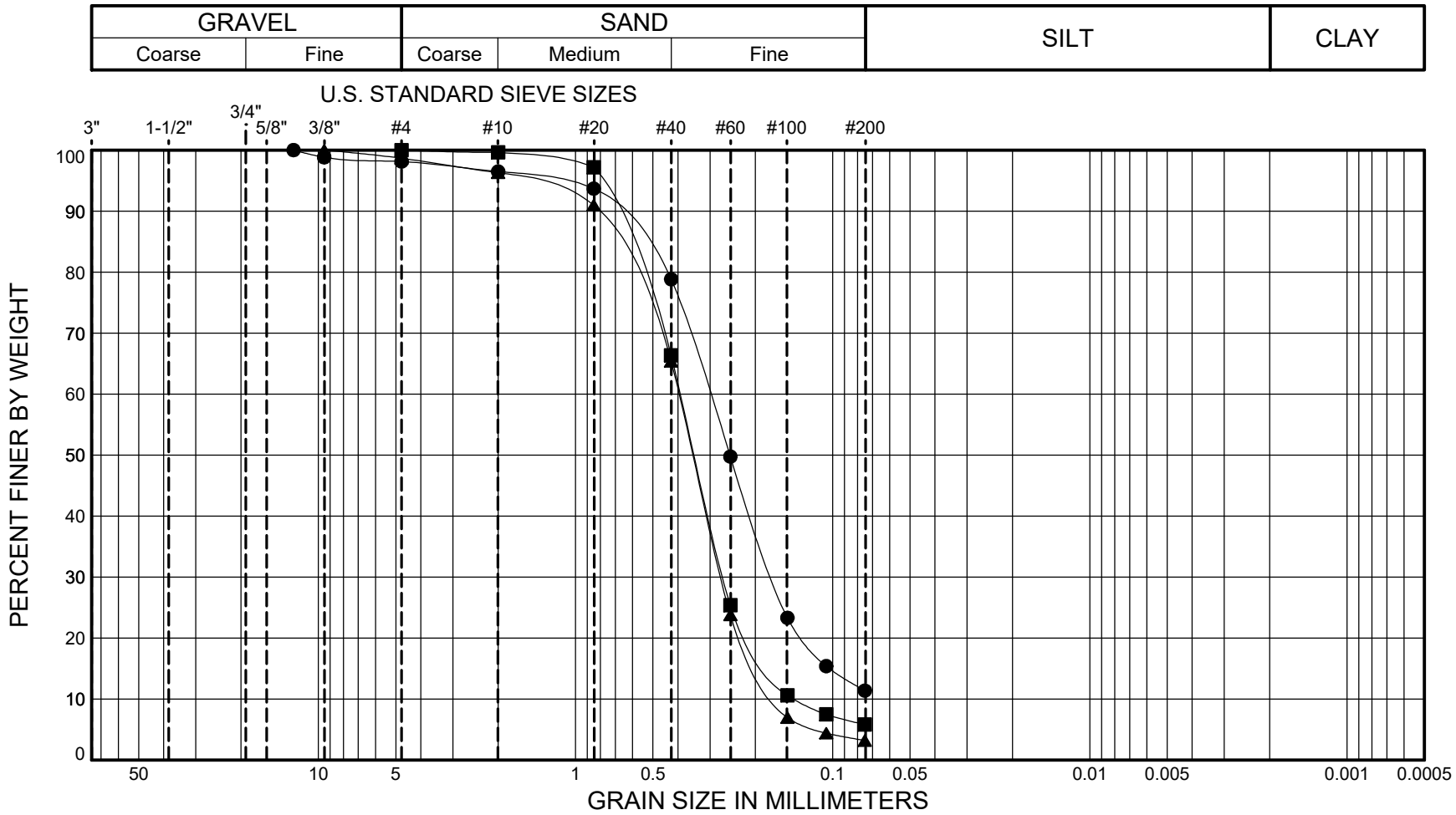
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-18



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-14	S-1	2.5 - 4.0	(SP-SM) Grayish-brown, poorly graded SAND with silt	18				1.9	86.7	11.4
■	HWA-14	S-2	5.0 - 6.5	(SP-SM) Light olive-brown, poorly graded SAND with silt	8					94.2	5.8
▲	HWA-14	S-4	10.0 - 11.5	(SP) Grayish-brown, poorly graded SAND	7				1.3	95.5	3.2

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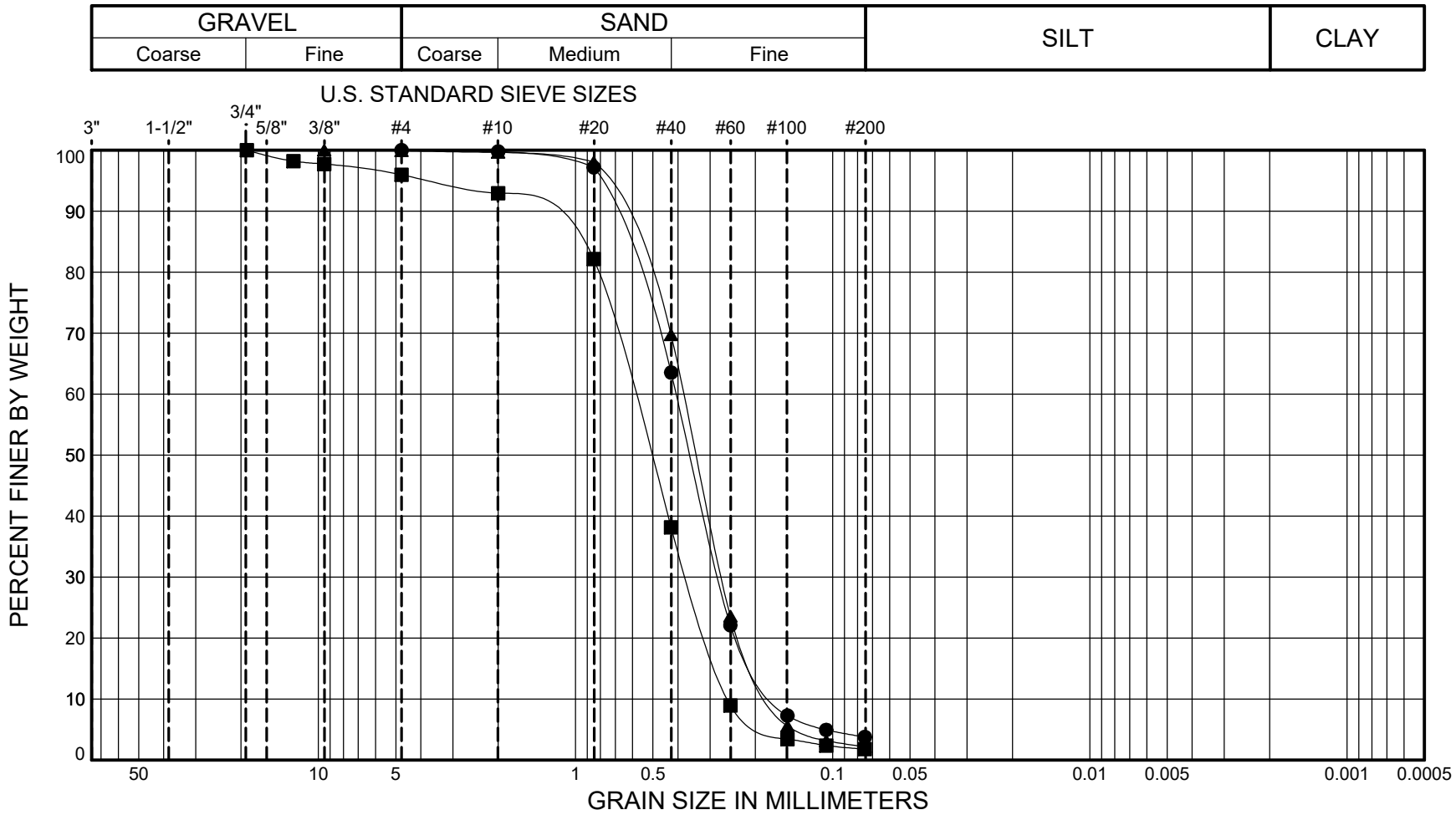
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-19

HWAGRSZ 2019-127-21.GPJ 7/12/23



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-15p	S-1	2.5 - 4.0	(SP) Grayish-brown, poorly graded SAND	8					96.2	3.8
■	HWA-15p	S-2	5.0 - 6.5	(SP) Grayish-brown, poorly graded SAND	7				4.0	94.2	1.8
▲	HWA-16	S-1	2.5 - 4.0	(SP) Grayish-brown, poorly graded SAND	7				0.1	97.7	2.2

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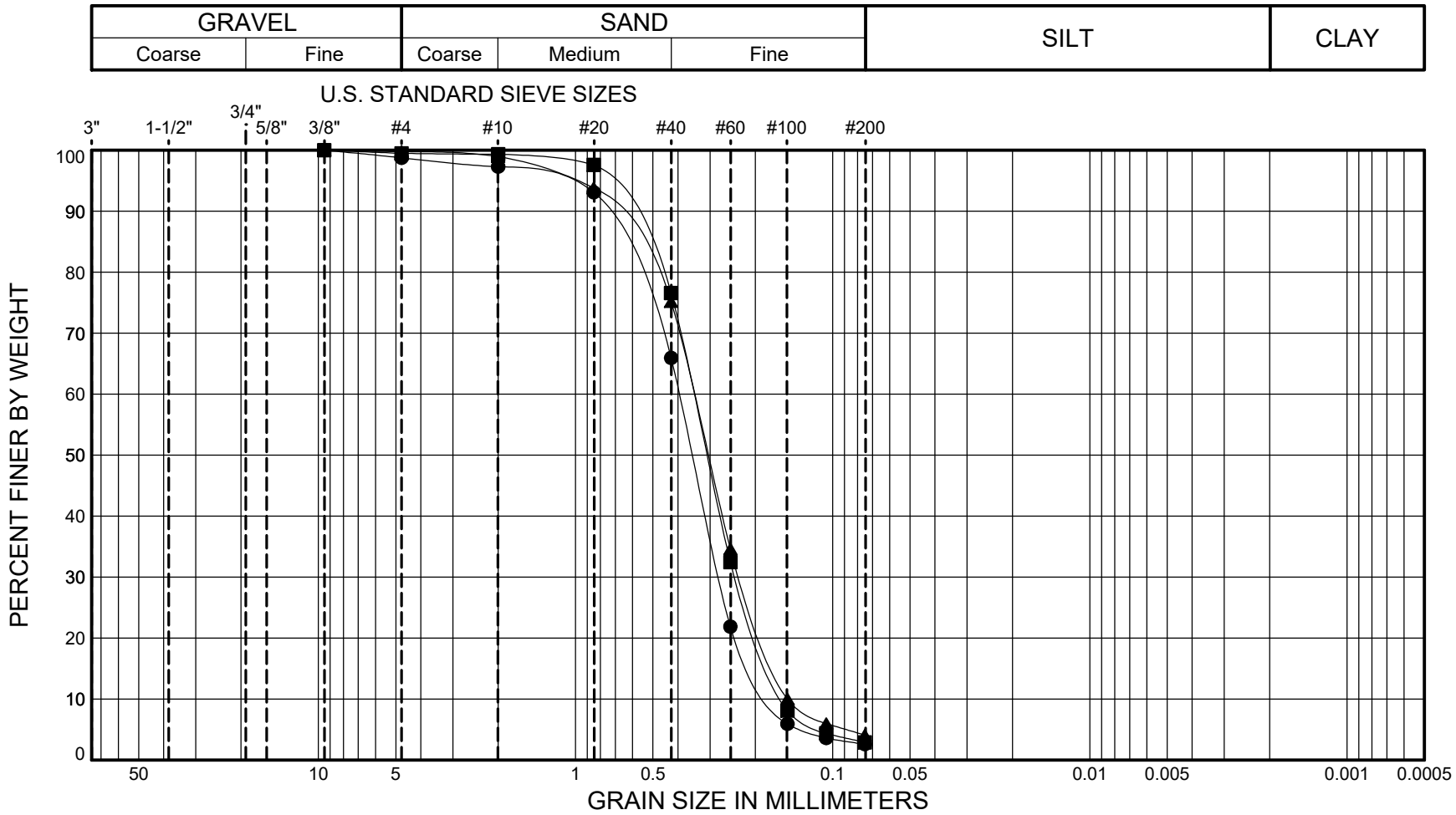
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-20

HWAGRSZ 2019-127-21.GPJ 7/12/23



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-16	S-3	7.5 - 9.0	(SP) Dark grayish-brown, poorly graded SAND	22				1.3	96.1	2.6
■	HWA-17	S-1	2.5 - 4.0	(SP) Light olive-brown, poorly graded SAND	7				0.5	96.6	2.9
▲	HWA-17	S-3	7.5 - 9.0	(SP) Dark grayish-brown, poorly graded SAND	23				0.2	95.7	4.1

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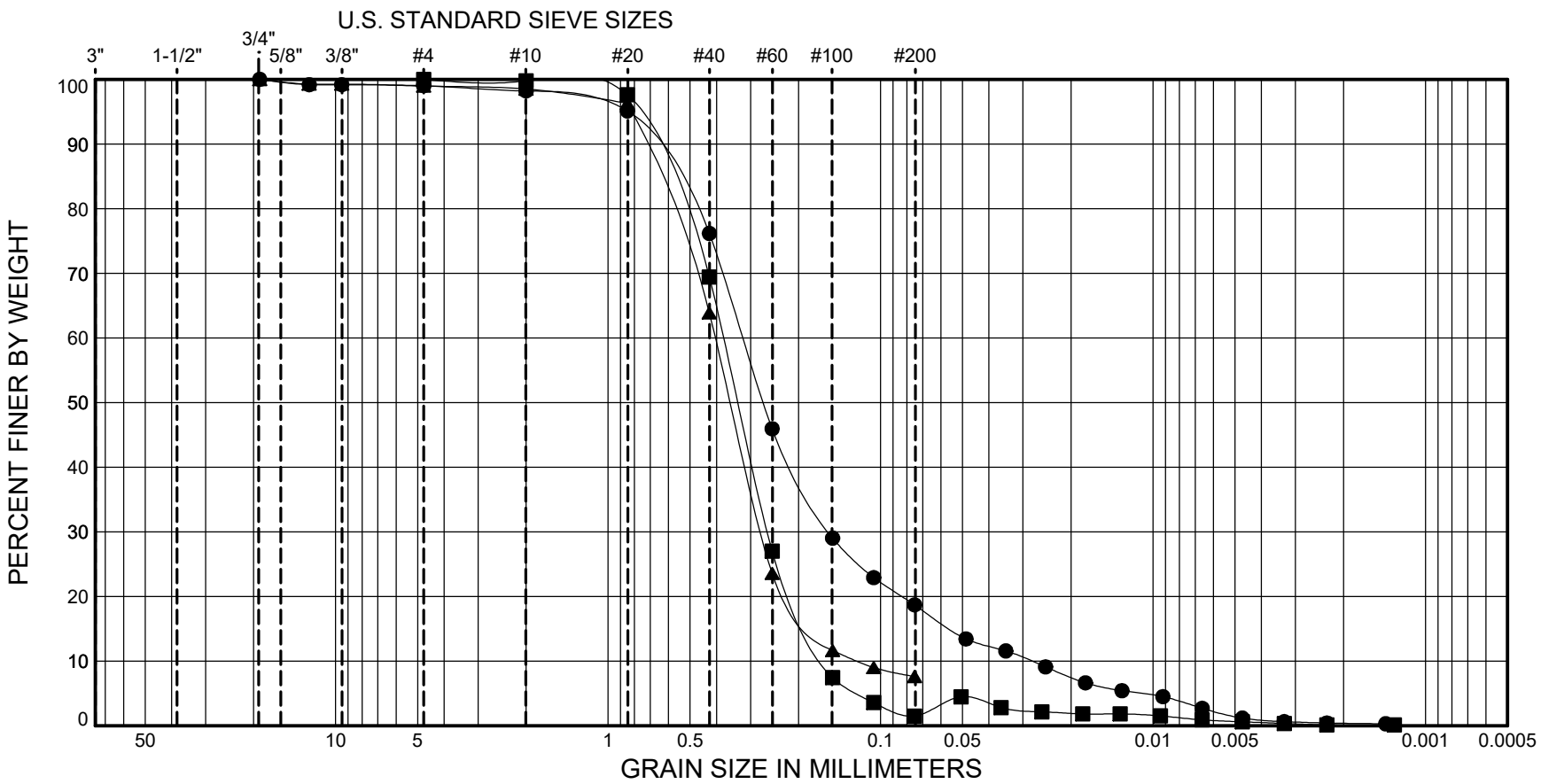
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-21

HWAGRSZ 2019-127-21.GPJ 7/12/23

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-18p	S-1	2.5 - 4.0	(SM) Dark yellowish-brown, silty SAND	17				1.0	80.3	18.7
■	HWA-18p	S-2	5.0 - 6.5	(SP) Dark olive-brown, poorly graded SAND	9					98.5	1.5
▲	HWA-18p	S-4	10.0 - 11.5	(SP-SM) Dark olive-gray, poorly graded SAND with silt	7				1.0	91.4	7.6

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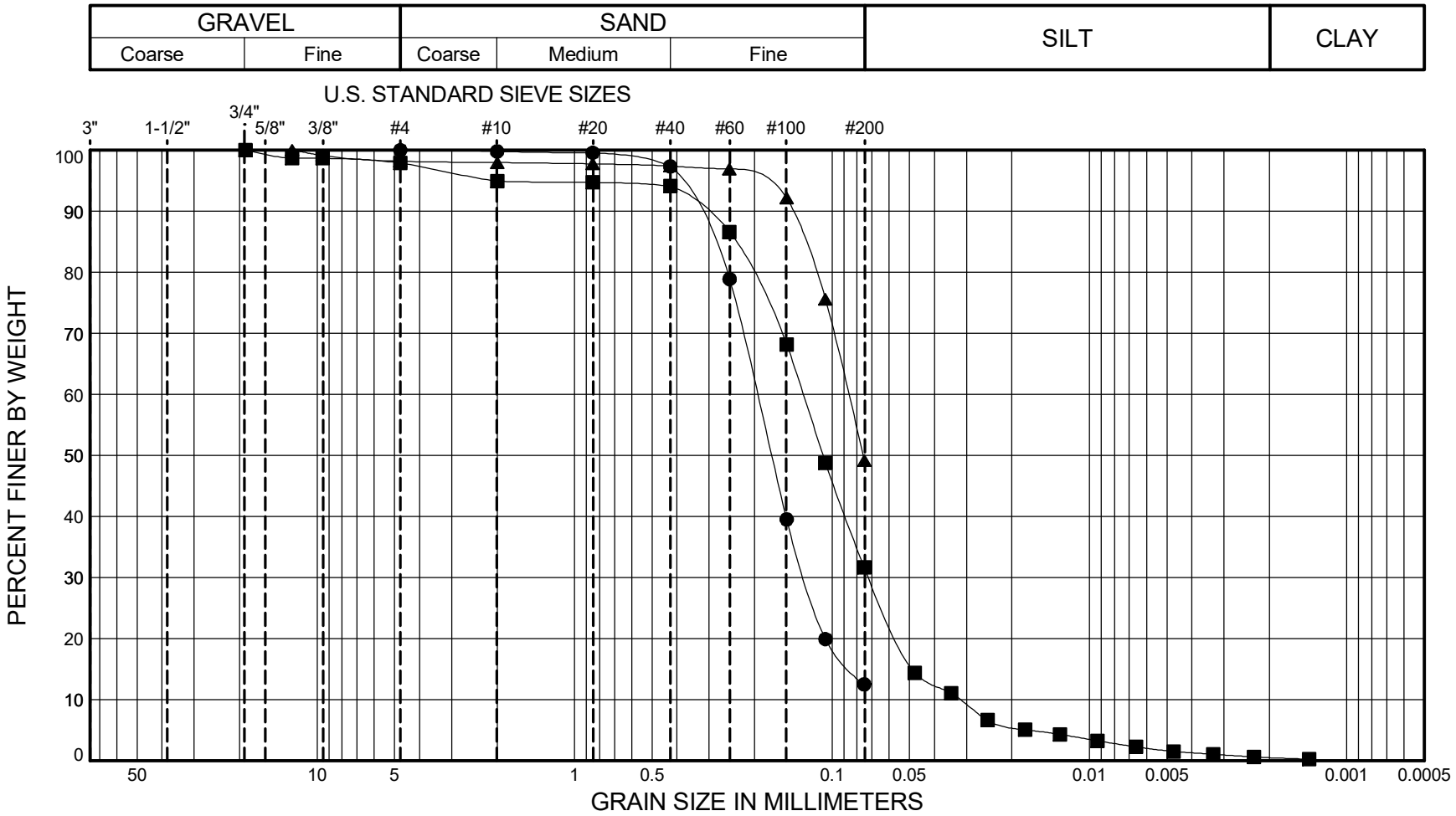
I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-22



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-20P	S-6	30.0 - 31.5	(SM) Very dark gray, silty SAND	23					87.5	12.5
■	HWA-20P	S-7	35.0 - 36.5	(SM) Very dark gray, silty SAND	25				2.1	66.2	31.6
▲	HWA-20P	S-8	40.0 - 41.5	(SM) Dark gray, silty SAND	34				1.8	49.0	49.2

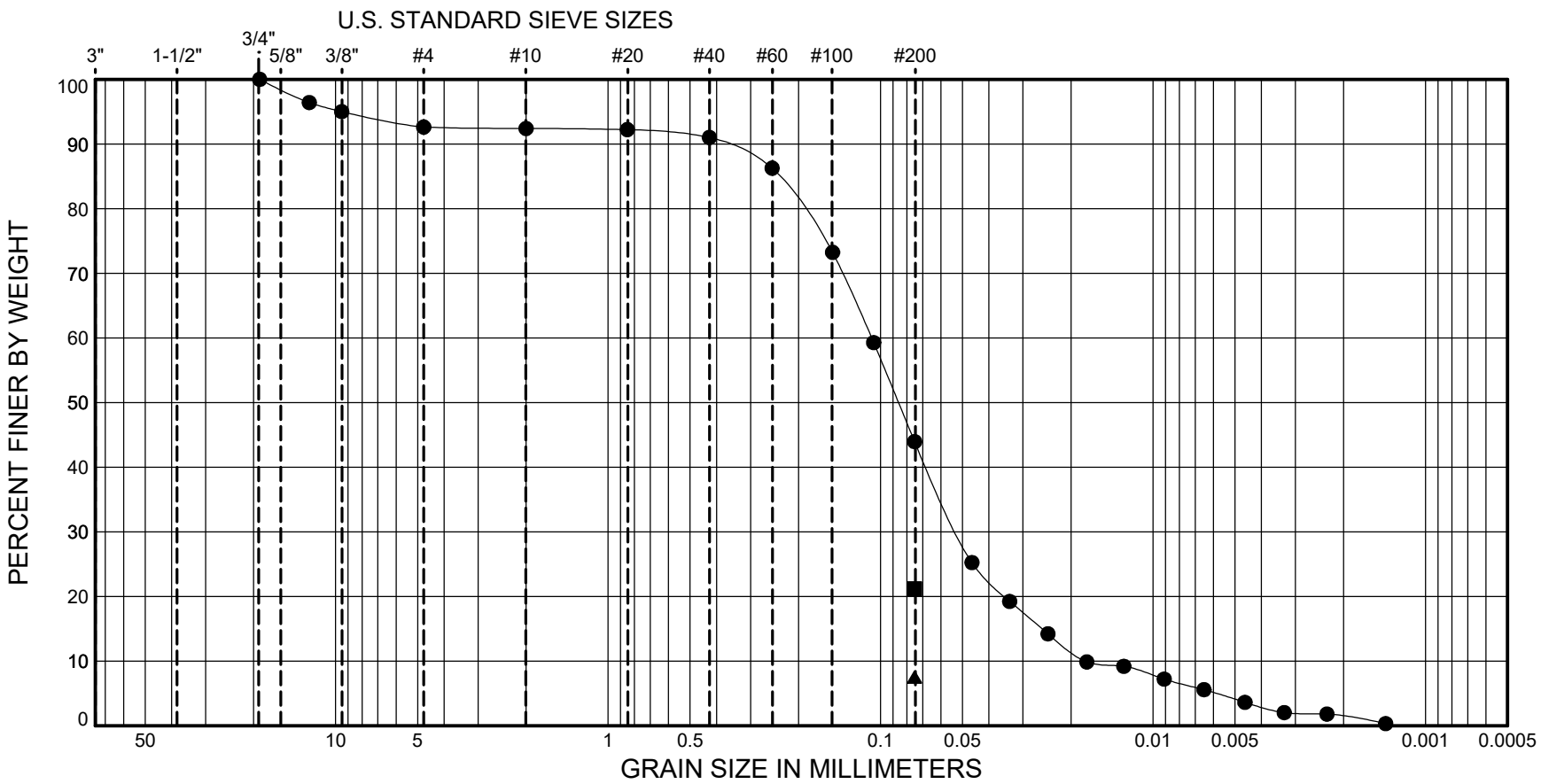
HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-23

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



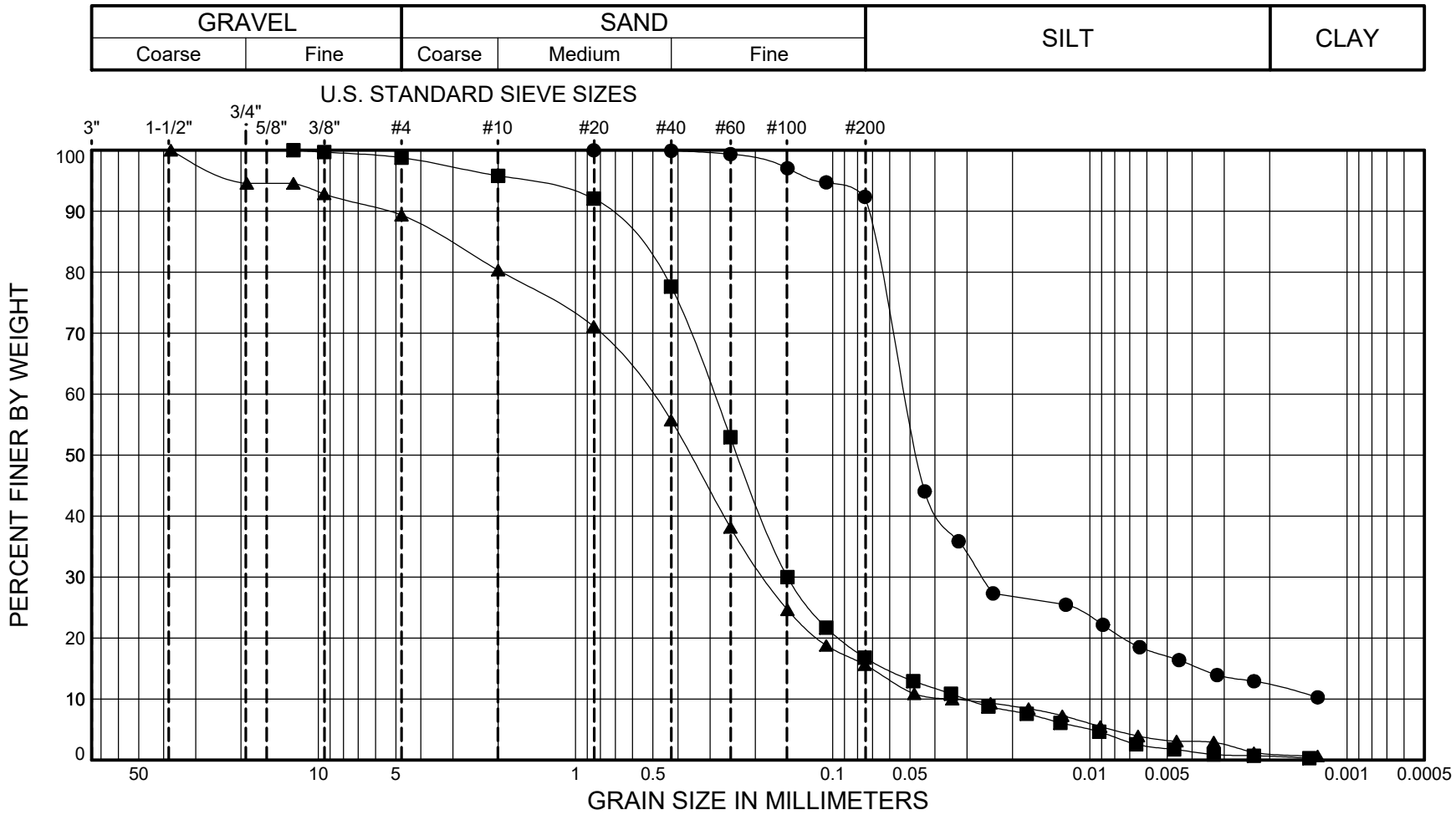
SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-20p	S-9	45.0 - 46.5	(SM) Dark grayish-brown, silty SAND	26	NP	NP	NP	7.4	48.7	43.9
■	HWA-20p	S-10	50.0 - 51.5	(SM) Very dark gray, silty SAND	28						21.2
▲	HWA-20p	S-11	55.0 - 56.5	(SP-SM) Very dark gray, poorly graded SAND with silt	26						7.5

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-24



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-20p	S-15	75.0 - 76.5	(ML) Gray, SILT	25	18	17	1		7.6	92.3
■	HWA-21p	S-1	2.5 - 4.0	(SM) Dark brown, silty SAND	12				1.2	82.0	16.8
▲	HWA-21p	S-3	7.5 - 9.0	(SM) Very dark grayish-brown, silty SAND	14				10.7	73.7	15.6

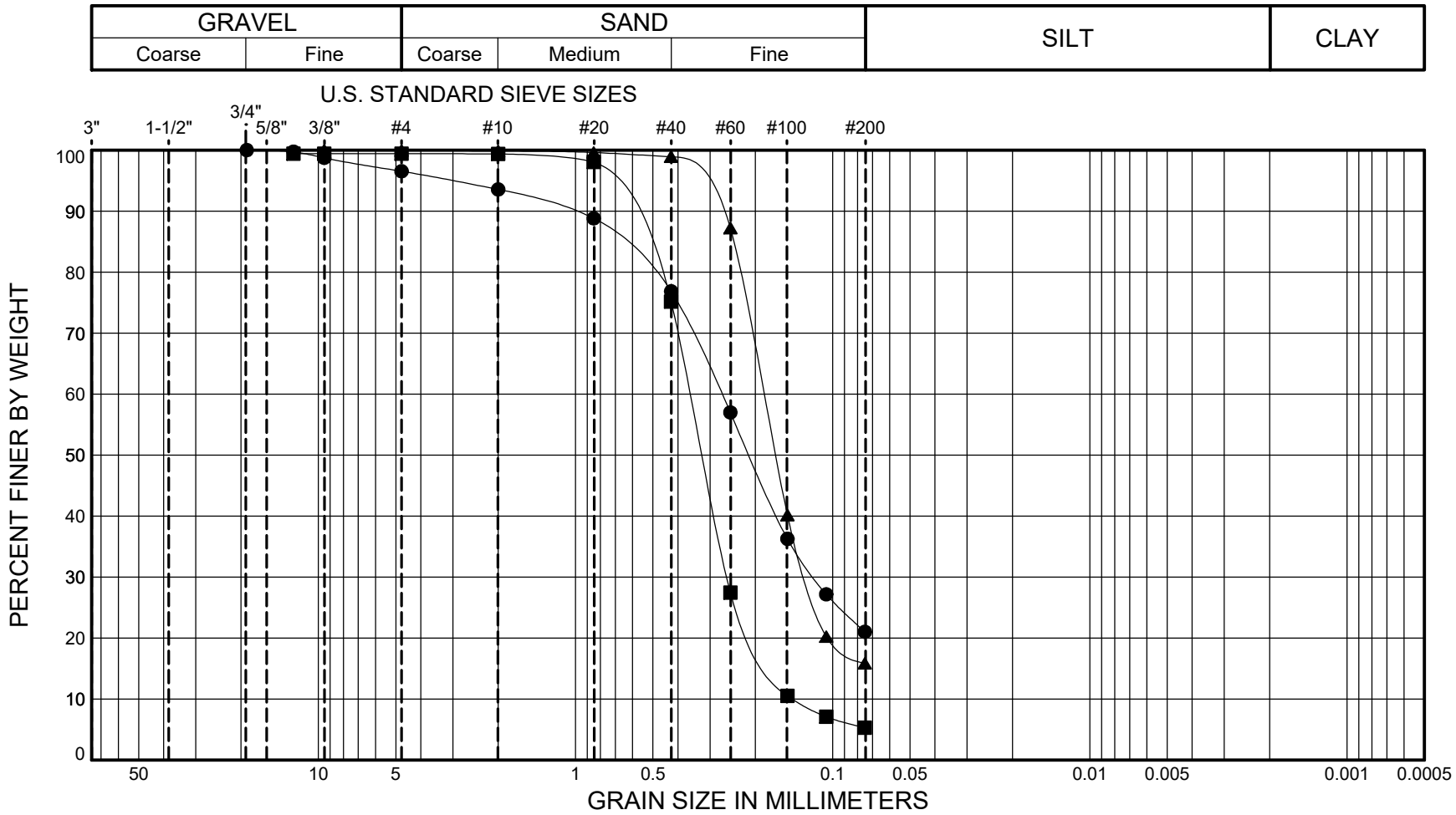
HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-25

HWAGRSZ 2019-127-21.GPJ 7/12/23



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-21p	S-4	10.0 - 11.5	(SM) Very dark brown, silty SAND	22				3.5	75.5	21.0
■	HWA-21p	S-6	20.0 - 21.5	(SP-SM) Very dark gray, poorly graded SAND with silt	20				0.0	94.1	5.3
▲	HWA-21p	S-7B	26.2 - 26.5	(SM) Dark brown, silty SAND	24				0.0	84.1	15.8

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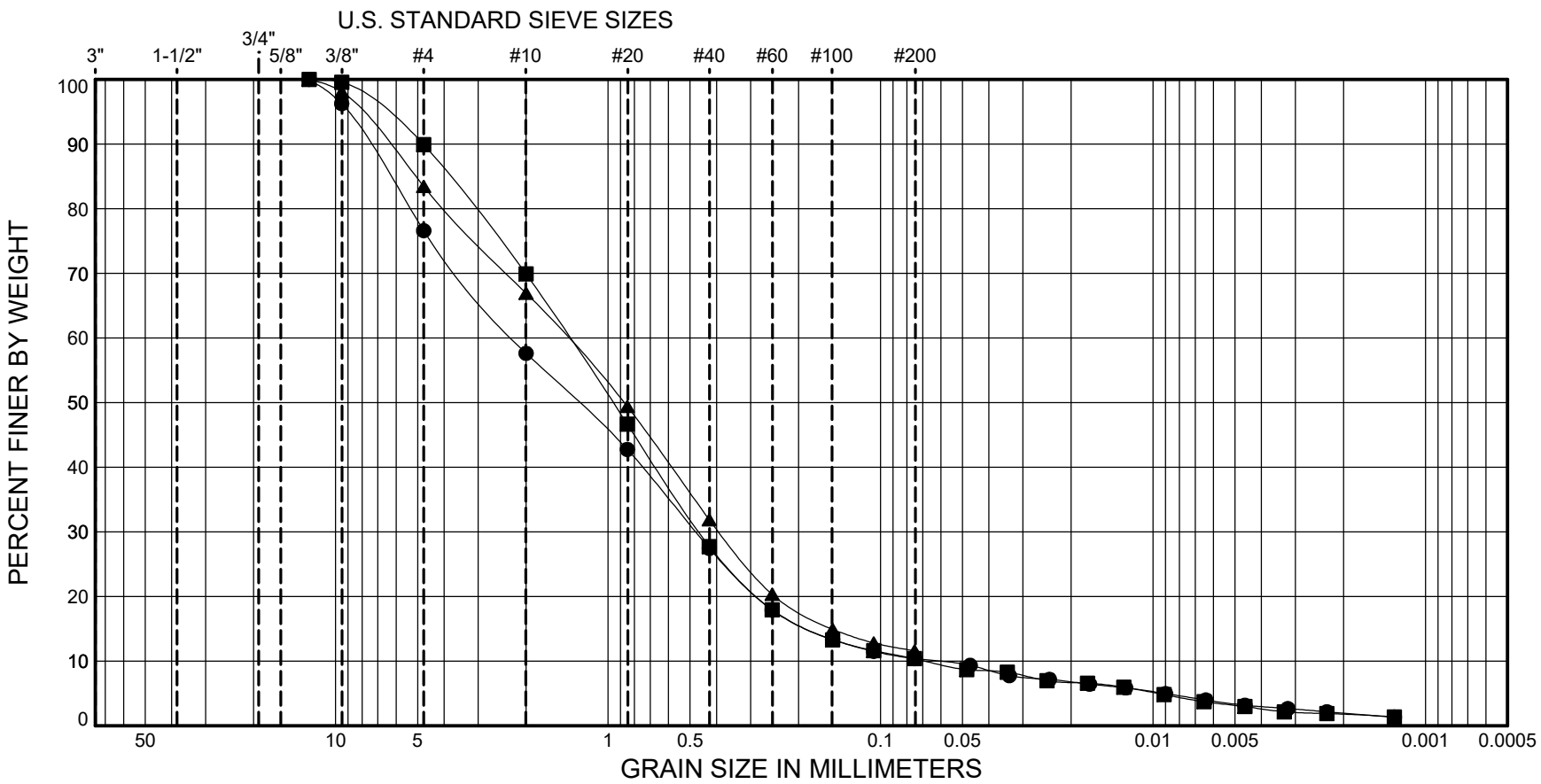
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-26

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-23p	S-1	2.5 - 4.0	(SW-SM) Very dark gray, well graded SAND with silt and gravel	8				23.4	66.2	10.4
■	HWA-23p	S-3	7.5 - 9.0	(SW-SM) Very dark gray, well graded SAND with silt	8				10.1	79.5	10.4
▲	HWA-23p	S-5	15.0 - 16.5	(SW-SM) Very dark gray, well graded SAND with silt and gravel	8				16.6	71.8	11.6

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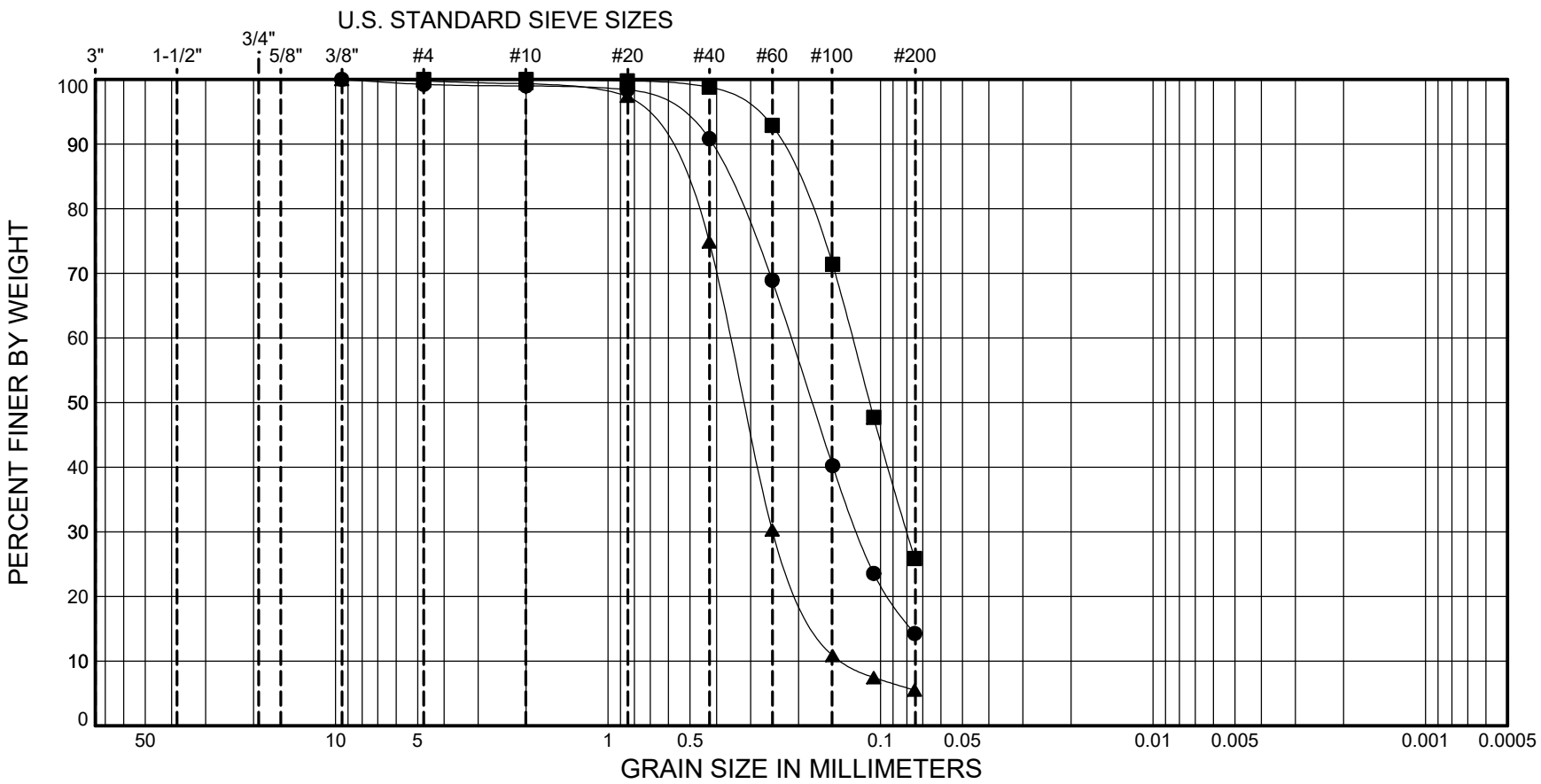
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-27

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



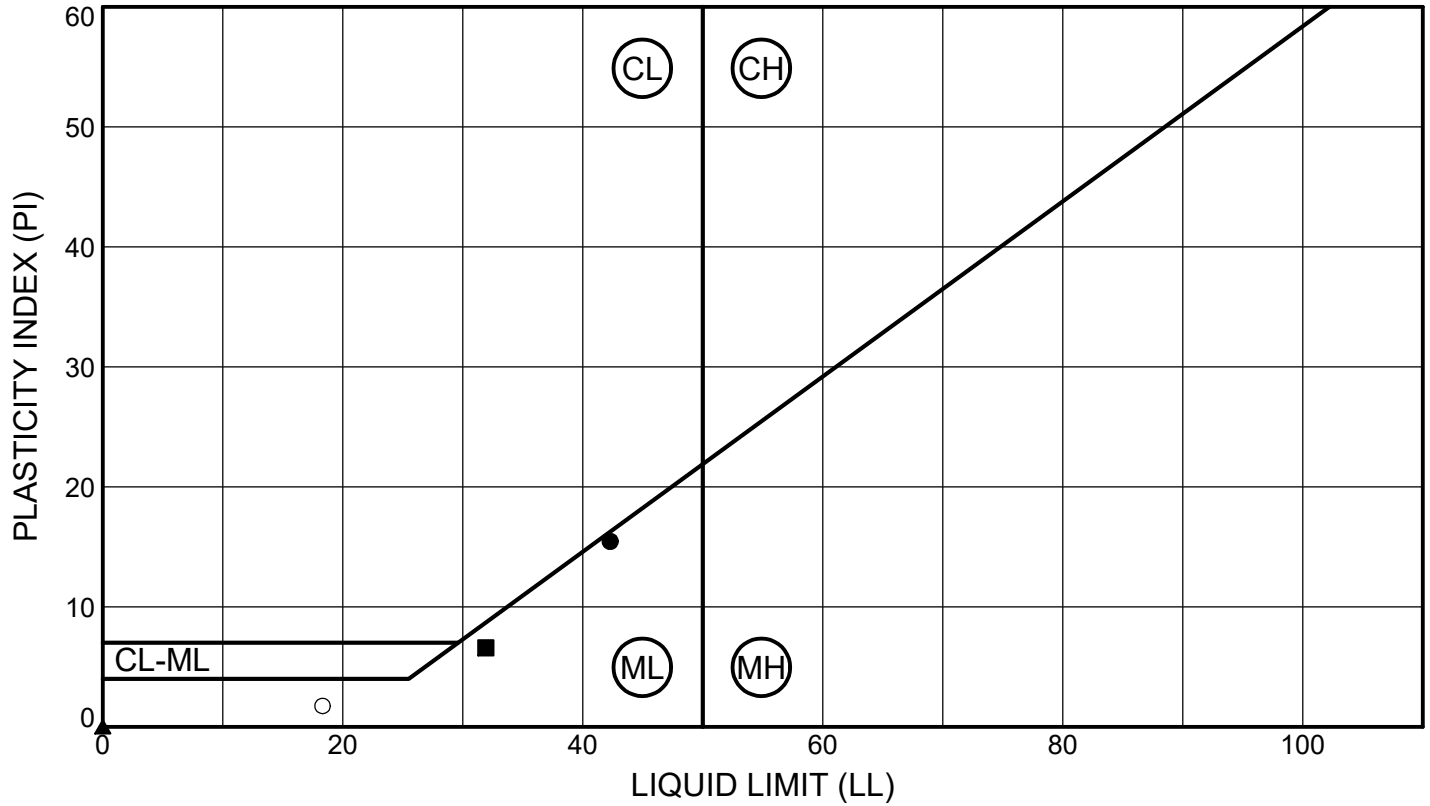
SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HWA-23p	S-11	45.0 - 46.5	(SM) Dark grayish-brown, silty SAND	24				0.8	85.0	14.3
■	PIT-1	S-3	8.5 - 9.0	(SM) Olive-brown, silty SAND	28					74.1	25.9
▲	PIT-3	S-1	4.4 - 4.8	(SP-SM) Yellowish-brown, poorly graded SAND with silt	9				0.3	94.2	5.5

HWA GeoSciences Inc.

I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2019-127-21 FIGURE: B-28



SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION	% MC	LL	PL	PI	% Fines
●	HWA- 3	S-23	95.0 - 96.5	(ML) Dark gray, SILT	36	42	27	15	98.0
■	HWA- 5	S-19	95.0 - 96.5	(ML) Gray, SILT	30	32	25	7	91.0
▲	HWA-20p	S-9	45.0 - 46.5	(SM) Dark grayish-brown, silty SAND	26	NP	NP	NP	43.9
○	HWA-20p	S-15	75.0 - 76.5	(ML) Gray, SILT	25	18	17	1	92.3

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I-5/4th Street and 88th Street NE
Corridor Improvements
Marysville, Washington

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS
METHOD ASTM D4318

PROJECT NO.: 2019-127-21 FIGURE: B-29

HWA GeoSciences Inc. Materials Testing Laboratory

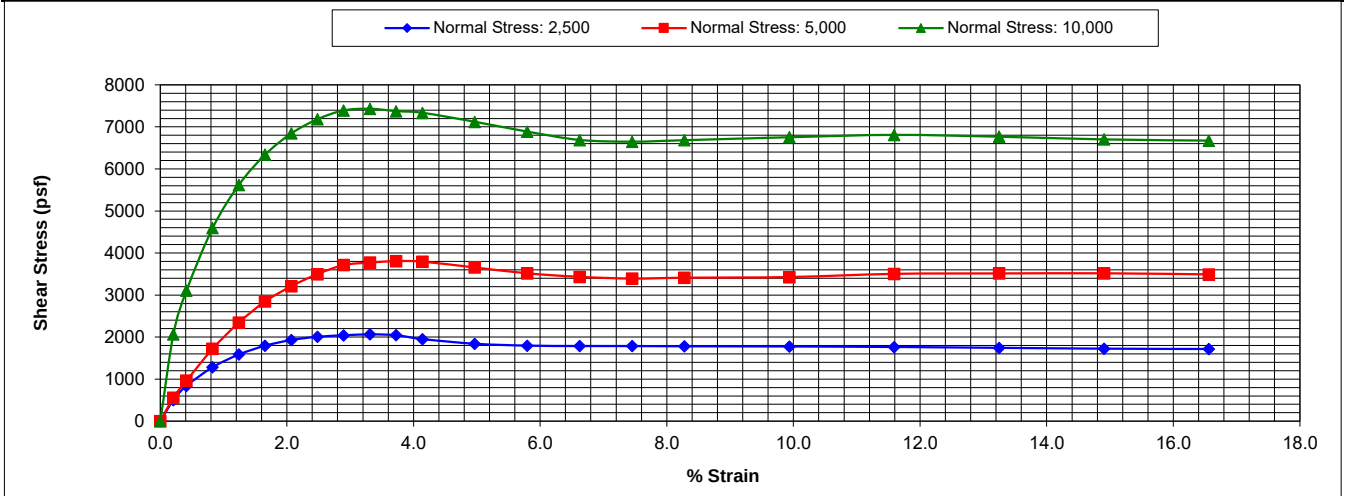
Direct Shear Test of Soils Under Consolidated Drained Conditions (ASTM D 3080)

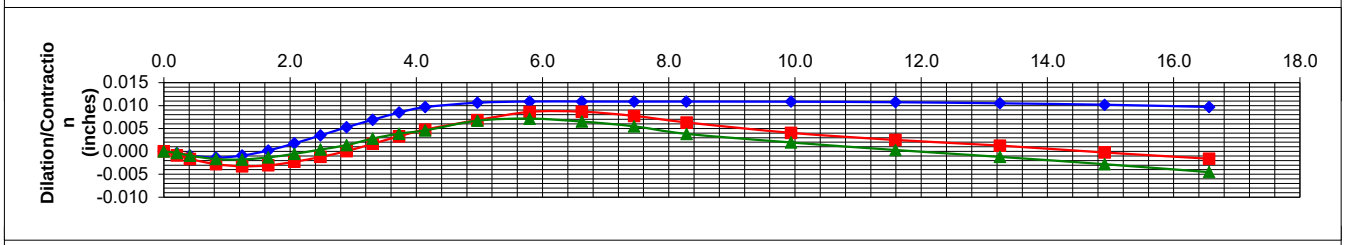
Project Name:	I-5/4th Street and 88th Street Corridor Improvments			**Project Number:**	2019-127
Sample Point:	HWA-2	**Sample No.:**	S-18A	**Sample Depth:**	70-70.5ft
Soil Description:	Silty SAND				
Soil Color:	Dark Gray			Average Strain Rate:	0.7 % per min.
Soil Group Symbol:	SM			Soil Specific Gravity:	2.65 (assumed)

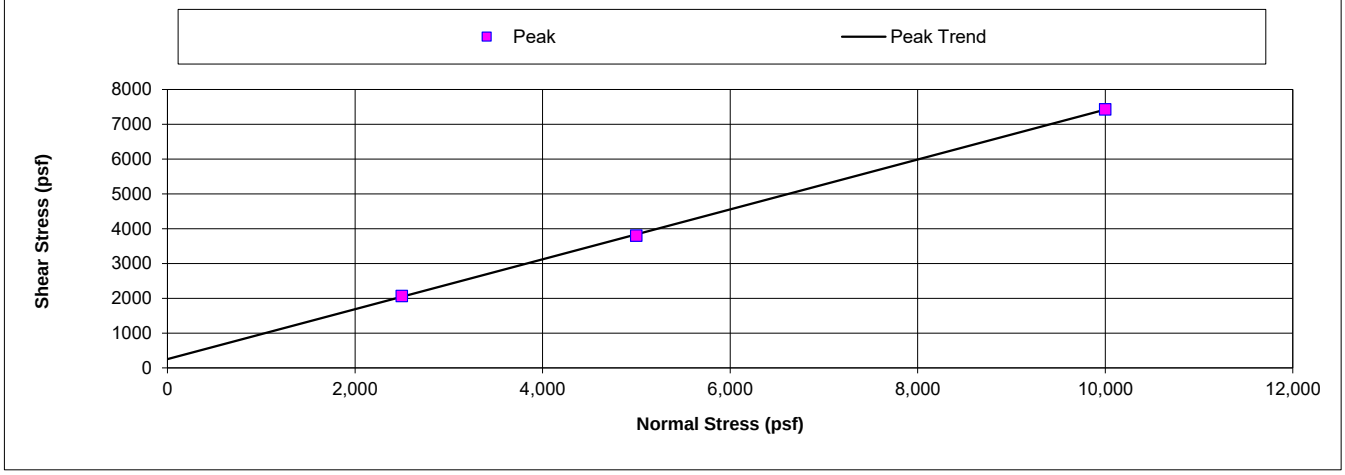
Normal Stress (psf)	2,500	5,000	10,000	**Average**
Peak Stress (psf)	2,065	3,807	7,431	
Initial Moisture Content (%):	25.4	25.4	25.4	25.4
Wet Unit Weight (pcf):	124.8	122.6	124.3	123.9
Dry Unit Weight (pcf):	99.5	97.8	99.1	98.8
Calculated Void Ratio	0.661	0.691	0.668	0.674
Calculated Porosity	0.398	0.409	0.401	0.402
Calculated Saturation (%)	101.8	97.4	100.7	100.0
Final Moisture Content (%)	28.1	26.9	26.6	27.2

Indicated Strength Parameters

	Cohesion psf	phi Angle (degrees)
Peak	252.1	35.6







Checked By: SEG Figure B-30

HWA GeoSciences Inc. Materials Testing Laboratory

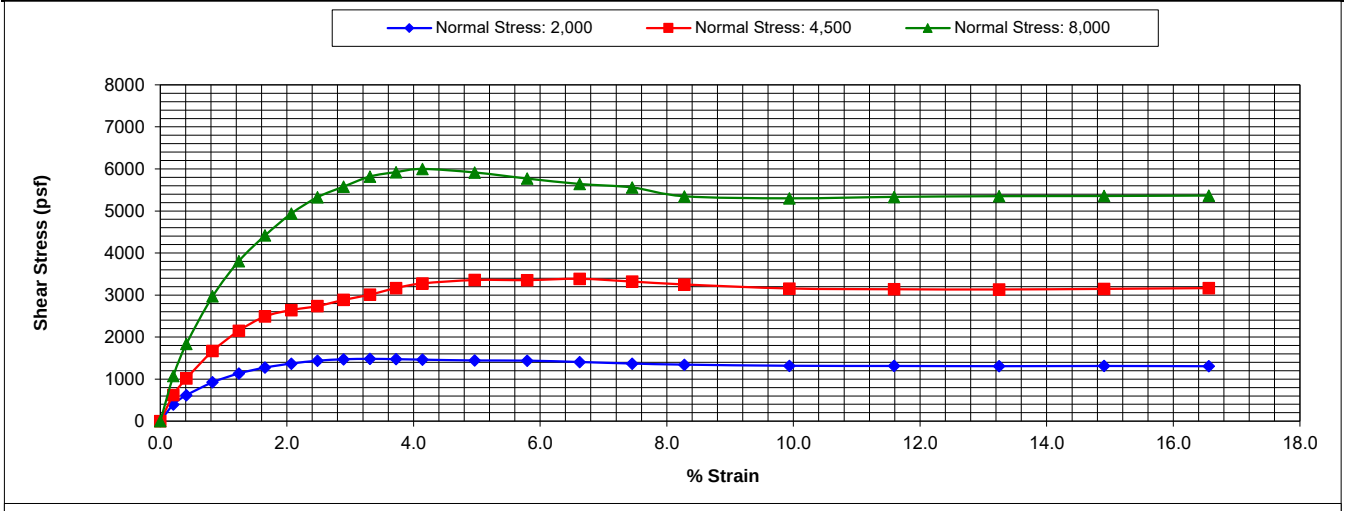
Direct Shear Test of Soils Under Consolidated Drained Conditions (ASTM D 3080)

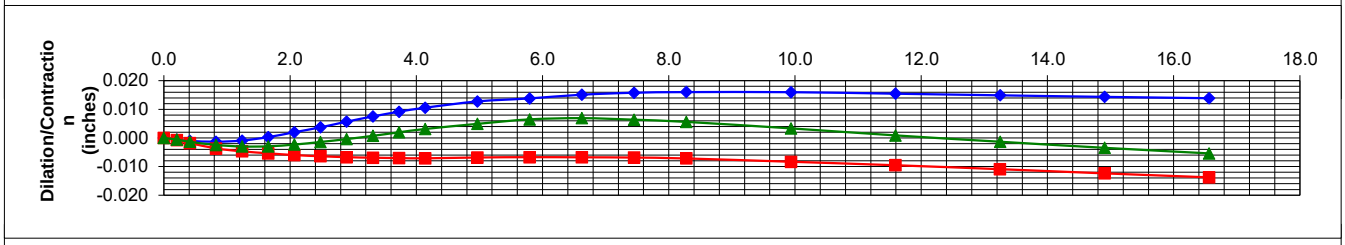
Project Name:	I-5/4th Street and 88th Street Corridor Improvements	**Project Number:**	2019-127
Sample Point:	HWA-3	**Sample No.:** S-14A	**Sample Depth:** 50-50.5ft
Soil Description:	Silty SAND		
Soil Color:	Dark Gray	Average Strain Rate:	0.7 % per min.
Soil Group Symbol:	SM	Soil Specific Gravity:	2.65 (assumed)

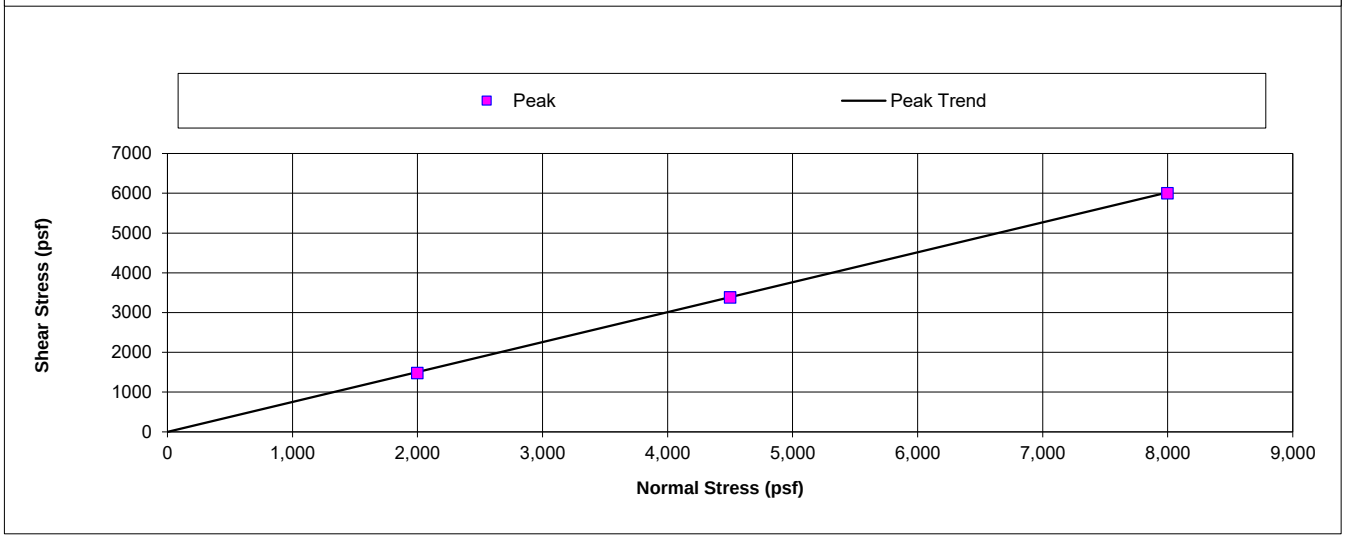
Normal Stress (psf)	2,000	4,500	8,000	**Average**
Peak Stress (psf)	1,481	3,386	5,999	
Initial Moisture Content (%):	28.4	28.4	28.4	28.4
Wet Unit Weight (pcf):	125.4	127.4	126.3	126.4
Dry Unit Weight (pcf):	97.7	99.3	98.4	98.5
Calculated Void Ratio	0.693	0.666	0.680	0.680
Calculated Porosity	0.409	0.400	0.405	0.405
Calculated Saturation (%)	108.6	113.0	110.5	110.7
Final Moisture Content (%)	28.2	24.0	25.8	26.0

Indicated Strength Parameters

	Cohesion psf	phi Angle (degrees)
Peak	0	37.0







Checked By: SEG Figure B-31

HWA GeoSciences Inc. Materials Testing Laboratory

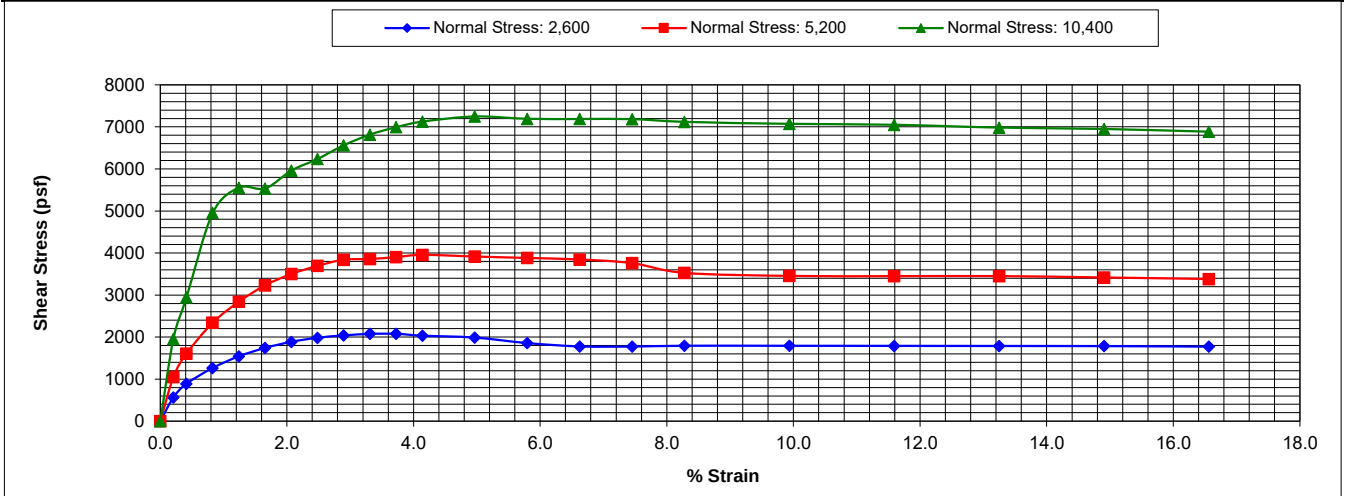
Direct Shear Test of Soils Under Consolidated Drained Conditions (ASTM D 3080)

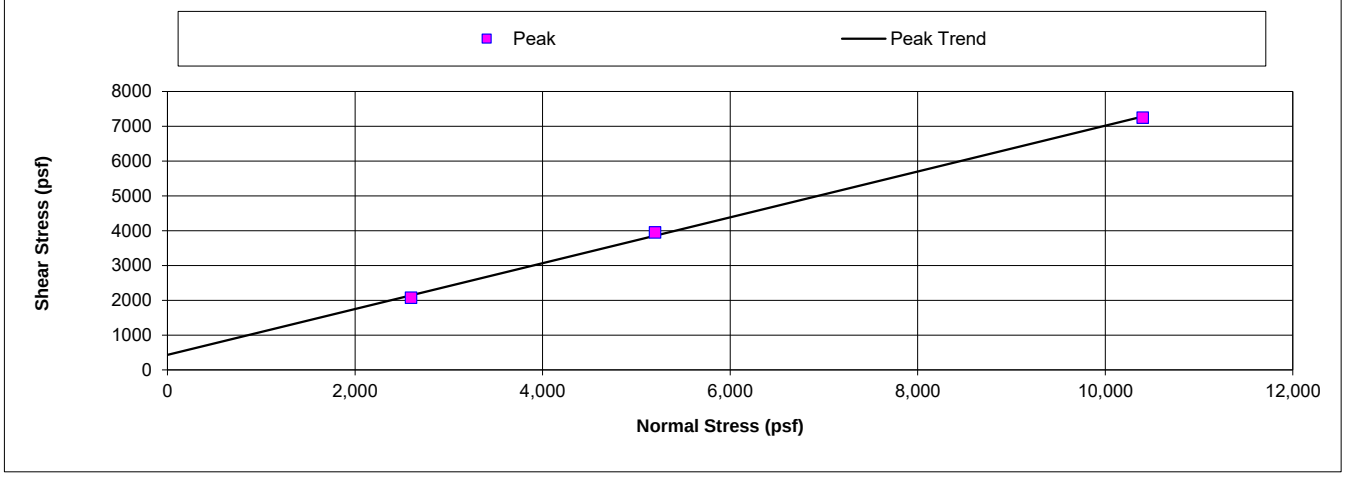
Project Name:	I-5/4th Street and 88th Street Corridor Improvements			**Project Number:**	2019-127
Sample Point:	HWA-5	**Sample No.:**	S-16A	**Sample Depth:**	80-80.5ft
Soil Description:	Silty SAND				
Soil Color:	Dark Gray			Average Strain Rate:	1.0 % per min.
Soil Group Symbol:	SM			Soil Specific Gravity:	2.65 (assumed)

Normal Stress (psf)	2,600	5,200	10,400	**Average**
Peak Stress (psf)	2,077	3,956	7,247	
Initial Moisture Content (%):	29.8	29.8	29.8	29.8
Wet Unit Weight (pcf):	124.3	124.5	125.4	124.7
Dry Unit Weight (pcf):	95.7	95.9	96.6	96.1
Calculated Void Ratio	0.728	0.724	0.712	0.721
Calculated Porosity	0.421	0.420	0.416	0.419
Calculated Saturation (%)	108.6	109.2	111.0	109.6
Final Moisture Content (%)	27.5	26.9	25.9	26.8

Indicated Strength Parameters

	Cohesion psf	phi Angle (degrees)
Peak	431.1	33.4





Checked By: SEG Figure B-32

HWA GeoSciences Inc. Materials Testing Laboratory

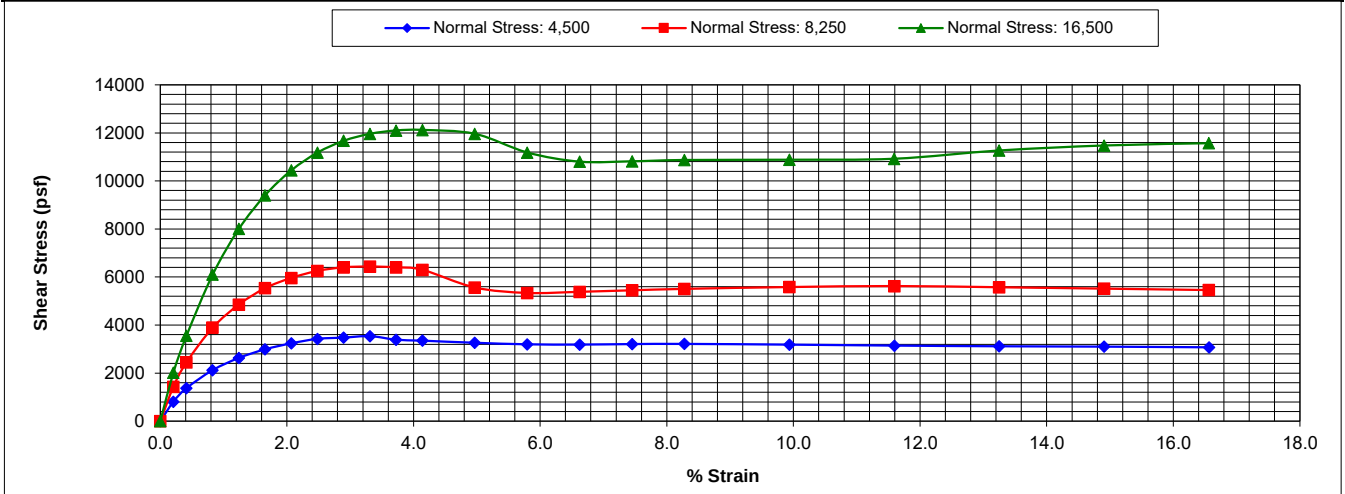
Direct Shear Test of Soils Under Consolidated Drained Conditions (ASTM D 3080)

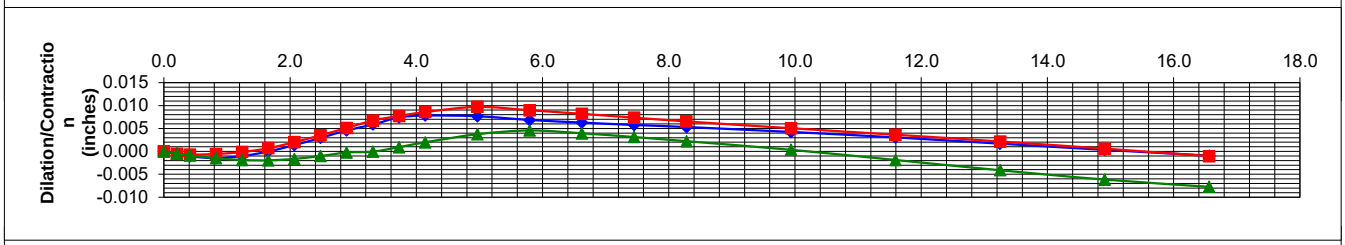
Project Name:	I-5/4th Street and 88th Street NE Corridor Improvements			**Project Number:**	2019-127
Sample Point:	HWA-5	**Sample No.:**	S-23A	**Sample Depth:**	115-115.5ft
Soil Description:	Silty SAND				
Soil Color:	Dark Gray			Average Strain Rate:	1.0 % per min.
Soil Group Symbol:	SM			Soil Specific Gravity:	2.65 (assumed)

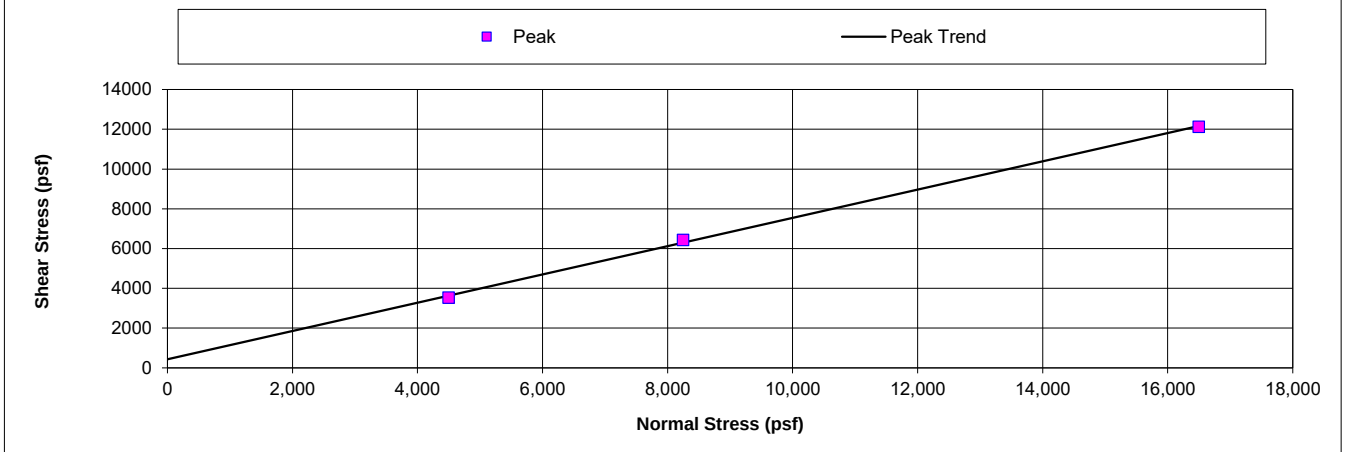
Normal Stress (psf)	4,500	8,250	16,500	**Average**
Peak Stress (psf)	3,539	6,436	12,123	
Initial Moisture Content (%):	25.4	25.4	25.4	25.4
Wet Unit Weight (pcf):	126.6	126.5	127.9	127.0
Dry Unit Weight (pcf):	100.9	100.9	102.0	101.3
Calculated Void Ratio	0.639	0.639	0.622	0.633
Calculated Porosity	0.390	0.390	0.383	0.388
Calculated Saturation (%)	105.5	105.5	108.4	106.5
Final Moisture Content (%)	26.5	26.0	25.2	25.9

Indicated Strength Parameters

	Cohesion psf	phi Angle (degrees)
Peak	432.5	35.4







Checked By: SEG Figure B-33

APPENDIX C

EXPLORATIONS BY OTHERS

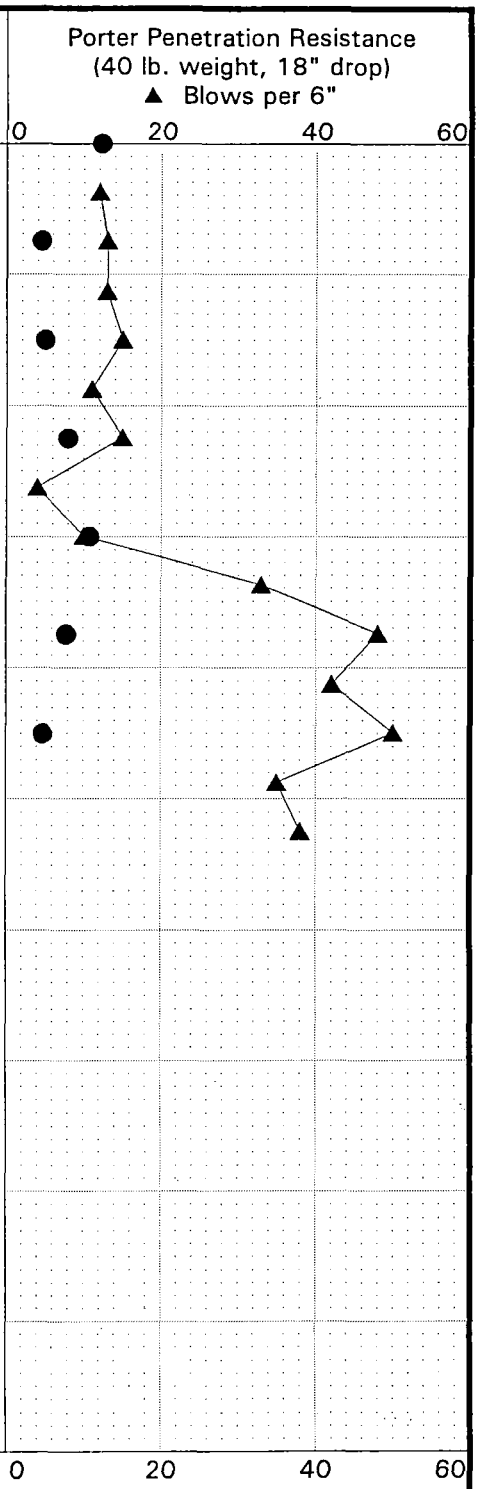
HANDBRNG 8/11/94

MATERIAL DESCRIPTION Surface Elevation: Approx Feet	Depth, Ft.
Medium dense, reddish-brown, slightly silty, fine SAND, scattered gravel; moist; SP-SM.	
	1.5
Medium dense, gray-brown, fine to medium SAND, trace of silt; moist; SP.	
	6.0
Dense, light gray, slightly silty to silty, fine SAND; moist; SM. - a seam of slightly clayey silt at about 7 feet.	
	10.5
BOTTOM OF BORING COMPLETED 2/11/94	

Symbol

Samples: 1, 2, 3, 4, 5, 6, 7

Ground Water Depth, Ft.: Not Observed During Drilling



LEGEND

- * Sample Not Recovered
- Water Level
- 1.5" O.D. Split Spoon Sample
- Surface Seal
- Annular Sealant
- Piezometer Screen
- Grout

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of subsurface materials.
3. Water level, if indicated above, is for the date specified and may vary.
4. The Porter penetration resistance in blows per 6 inches correlates approximately to the Standard Penetration Resistance in blows per foot.
5. Refer to KEY for explanation of 'Soil Log' symbols.
6. USC letter symbol based on visual classification.

I-5/88th Street N.E. Interchange
Marysville, Washington

LOG OF HAND BORING HB-1

February 1994 W-6671-02

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. A-6

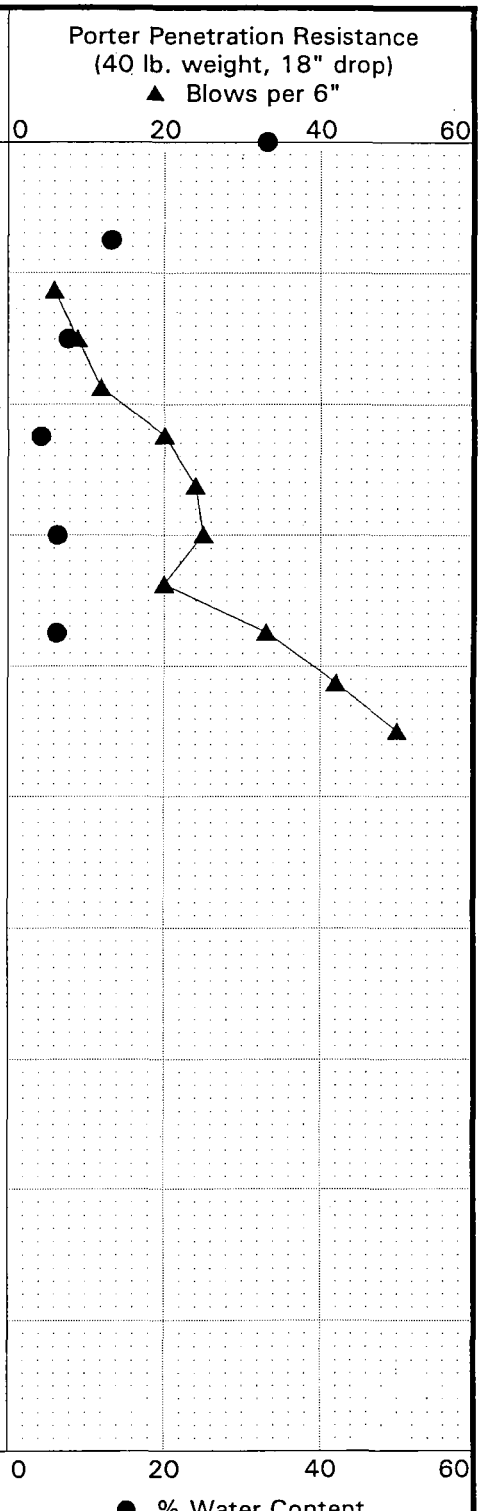
HANDBRNG 8/11/94

MATERIAL DESCRIPTION Surface Elevation: Approx Feet	Depth, Ft.
Loose, reddish-brown to brown, silty, fine SAND, organics; moist; SM.	
Medium dense, gray-brown, silty, fine SAND, scattered gravel; moist; SM.	3.0
Medium dense to dense, gray-brown to brown, trace of gravel to gravelly, slightly silty SAND; moist; SP-SM.	4.5
BOTTOM OF BORING COMPLETED 2/11/94	9.0

Symbol

Samples: 1, 2, 3, 4, 5, 6

Ground Water Depth, Ft.: Not Observed During Drilling



LEGEND

- * Sample Not Recovered
- Water Level
- 1.5" O.D. Split Spoon Sample
- Surface Seal
- Annular Sealant
- Piezometer Screen
- Grout

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of subsurface materials.
3. Water level, if indicated above, is for the date specified and may vary.
4. The Porter penetration resistance in blows per 6 inches correlates approximately to the Standard Penetration Resistance in blows per foot.
5. Refer to KEY for explanation of 'Soil Log' symbols.
6. USC letter symbol based on visual classification.

I-5/88th Street N.E. Interchange
Marysville, Washington

LOG OF HAND BORING HB-2

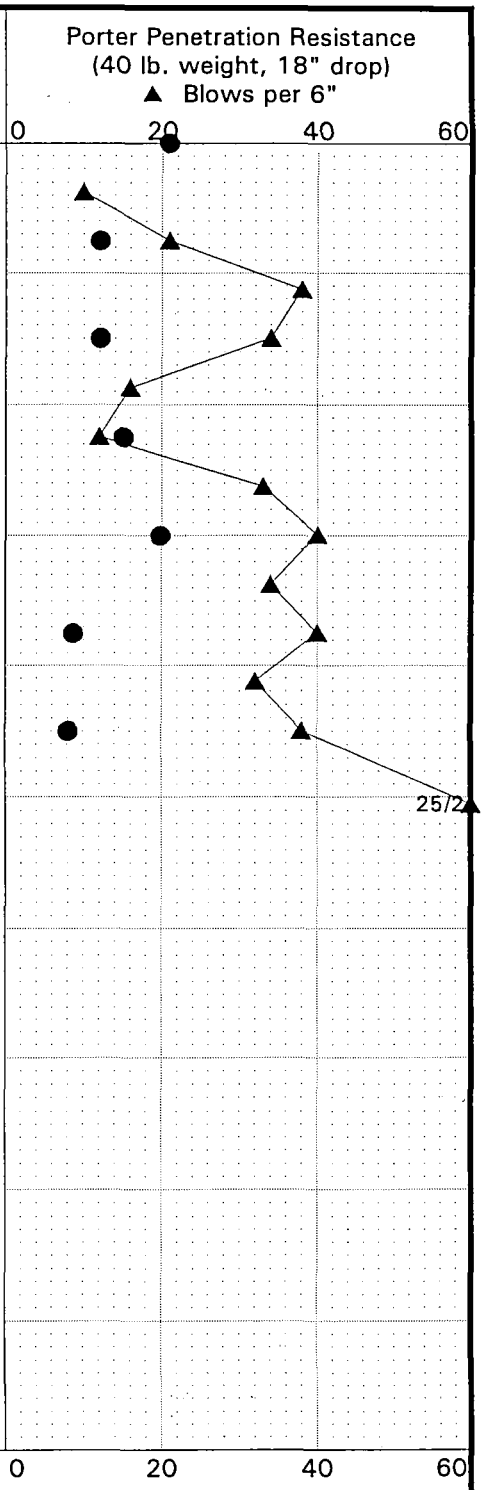
February 1994 W-6671-02

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. A-7

HANDBRNG 8/11/94

MATERIAL DESCRIPTION Surface Elevation: Approx Feet	Depth, Ft.	Symbol	Samples	Ground Water
Loose to medium dense, reddish-brown to dark brown, silty, fine SAND; moist; organics; SM.	1.5		1	Not Observed During Drilling
Medium dense to dense, brown to dark brown, slightly gravelly to gravelly, fine SAND; moist; organics; (FILL?) SW.	6.0		2, 3, 4	
Dense to very dense, light gray, silty, fine to medium SAND; moist; SM.	10.1		5, 6, 7	
BOTTOM OF BORING COMPLETED 2/11/94				



LEGEND

- * Sample Not Recovered
- Water Level
- 1.5" O.D. Split Spoon Sample
- Surface Seal
- Annular Sealant
- Piezometer Screen
- Grout

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of subsurface materials.
3. Water level, if indicated above, is for the date specified and may vary.
4. The Porter penetration resistance in blows per 6 inches correlates approximately to the Standard Penetration Resistance in blows per foot.
5. Refer to KEY for explanation of "Soil Log" symbols.
6. USC letter symbol based on visual classification.

I-5/88th Street N.E. Interchange
Marysville, Washington

LOG OF HAND BORING HB-3

February 1994 W-6671-02

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Geotechnical and Environmental Consultants

FIG. A-8

TEST DATA

BORING B-1

(Station 40+65, 5 feet right)

Lab Tests	Moisture Content (%)	Dry Density (pcf)	Blow Count	Samples	Group Symbol	DESCRIPTION (Surface Elevation (ft.) : 16.0)
					SP	4 inches asphalt concrete pavement Brown fine to medium sand with occasional fine gravel (medium dense, moist) (fill)
MD	7	101	11	■		
			62	■	SP	Grayish brown fine to medium sand with occasional fine gravel (very dense, moist to wet) (fill)
					SP	Gray fine to medium sand with occasional fine gravel (loose, wet)
MD	22	104	8	■		
MD	209	22	7	■	PT/OL	Dark brown peat and organic silt with scattered wood debris (medium stiff to stiff, wet)
			11	□		
MD	65	40	18	■		
					SP	Gray fine to medium sand with occasional fine gravel and scattered wood debris (dense, wet)
			45	■		
			24	■	SP	Brownish gray fine to medium sand with scattered organic matter (medium dense, wet)

DEPTH IN FEET: 0, 5, 10, 15, 20, 25, 30, 35, 40

Note: See Figure A-2 for explanation of symbols

:SBM:CMS 8/10/92

0280-015-R05

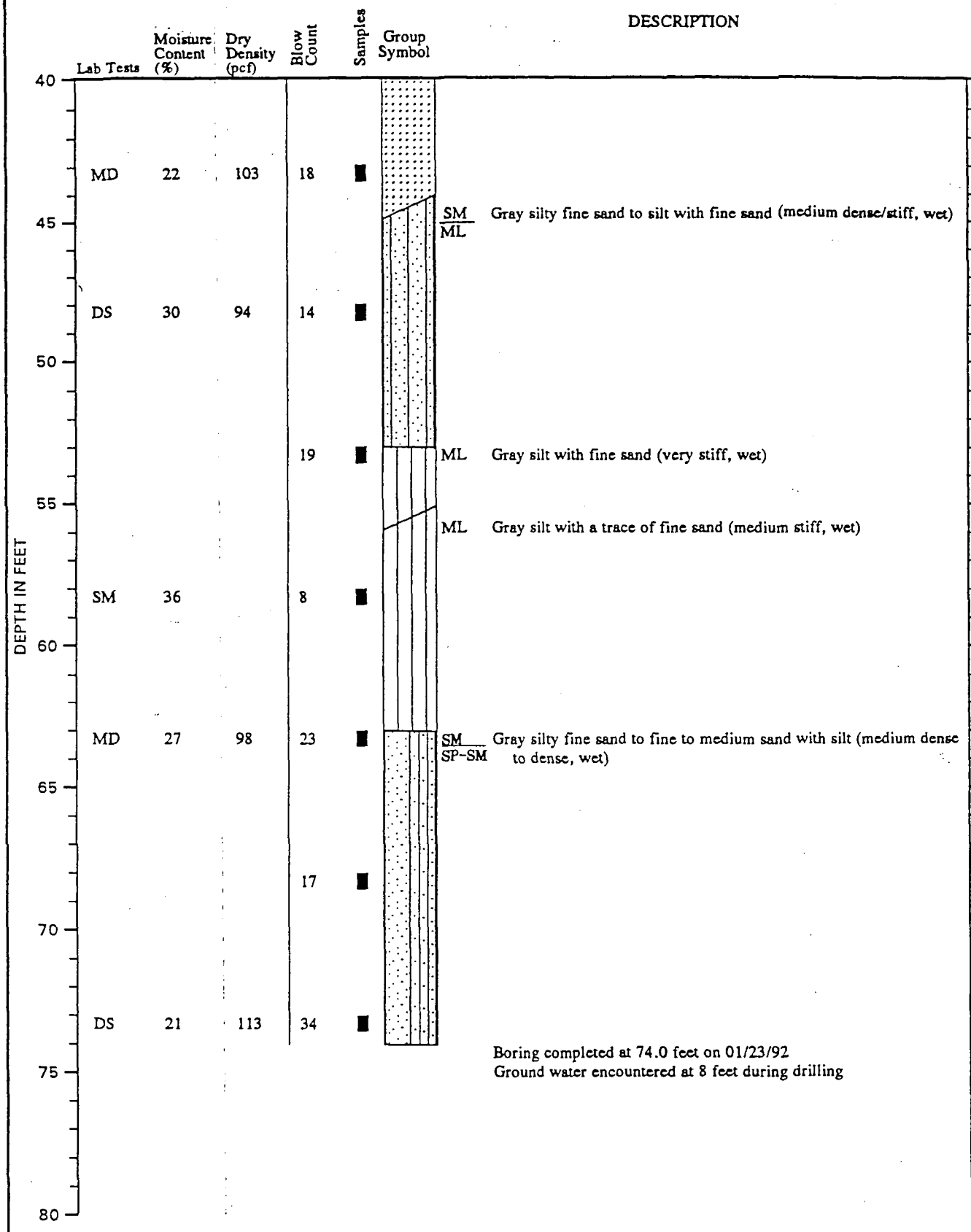
Geo Engineers

LOG OF BORING

FIGURE A-3

TEST DATA

BORING B-1 (Continued)



Note: See Figure A-2 for explanation of symbols

Geo Engineers

LOG OF BORING

FIGURE A-3

:SBM:CMS 8/10/92

0280-015-R05

TEST DATA

BORING B-5

(Station 37+14, 5 feet right)

Lab Tests	Moisture Content (%)	Dry Density (pcf)	Blow Count	Samples	Group Symbol	DESCRIPTION Surface Elevation (ft.) : 15.0
					SP— SM	3 inches asphalt concrete pavement Grayish brown fine to medium sand with silt (medium dense, moist) (fill)
MD	7	97	14	■		
			15	■		Grades to wet
						Boring completed at 9.0 feet on 01/22/92 Ground water encountered at 7 feet during drilling

0 5 10 15 20 25 30 35 40

Note: See Figure A-2 for explanation of symbols.

GeoEngineers

LOG OF BORING

FIGURE A-7

Washington State Department of Transportation

LOG OF TEST BORING

Start Card SE04296

HOLE No. CP-2-09

Sheet 1 of 1

Job No. XL-3084 SR 5 Elevation ft (m)

Project I-5 Median Barrier

Driller Dickson, Jody Lic# 2637

Site Address Vic. Of I-5 and Marysville

Inspector Donny Henderson

Start March 31, 2009 Completion March 31, 2009 Well ID# Equipment CME 850 with Autohammer

Station 133+00 Offset 80' LT Casing 0 Method Wet Rotary

Northing Easting Latitude Longitude

County Snohomish Subsection SE1/4 of NE1/4 Section 20 Range 5E Township 30

Depth (ft)	Meters (m)	Standard Penetration Blows/ft (10 20 30 40)	SPT Blows/6" (N)	Sample Type	Sample No. (Tube No.)	Lab Tests	Description of Material	Groundwater	Instrument
			5 7 6 7 (13)		D-1		Silty SAND with gravel, trace organics, medium dense, gray, moist, homogenous, HCl not tested. Length Recovered:1.7 ft. Length Retained:1.7 ft.		
	1		7 8 5 4 (13)		D-2		Silty SAND with gravel, trace organics, medium dense, gray, moist, homogenous, HCl not tested. Length Recovered:1.7 ft. Length Retained:1.7 ft.		
5			5 2 4 6 (6)		D-3		Poorly graded SAND with gravel, slightly silty, trace organics, loose, brown, moist, homogenous, HCl not tested. Length Recovered:1.4 ft. Length Retained:1.4 ft.		
	2		5 7 8 8 (15)		D-4		Poorly graded SAND, slightly silty, medium dense, gray, moist, homogenous, HCl not tested. Length Recovered:1.7 ft. Length Retained:1.7 ft.		
10	3		4 4 6 7 (10)		D-5		Poorly graded SAND, slightly silty, trace gravel, medium dense, gray/brown, moist, stratified, HCl not tested. Length Recovered:1.3 ft. Length Retained:1.3 ft. layers of silty sand		
	4								
15			7 12 15 12 (27)		D-6		Poorly graded SAND, slightly silty, dense, gray, moist, homogenous, HCl not tested. Length Recovered:1.4 ft. Length Retained:1.4 ft. No Free Water		
	5								
							End of test hole boring at 17 ft below ground elevation. This is a summary Log of Test Boring. Soil/Rock descriptions are derived from visual field identifications and laboratory test data. Note: REF = SPT Refusal		
20	6								

SOIL XL-3084.GPJ SOIL.GDT 4/2/09

WASHINGTON
STATE HIGHWAY COMMISSION
DEPARTMENT OF HIGHWAYS

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LOG OF TEST BORING

P.S.H. 1 S.R. 5 Section Ebey Slough to Quilceda Creek Job No. L-3191
Hole No. H-1 Sub Section 4th St. O'Xing Bridge: Pier #1 Cont. Sec. 3104
Station NB 45+53 Offset 8' RT ℄ Ground El. 16.3
Type of Boring Auger 8C48-8 Casing Auger 95.5 W.T. El. 8.3
Inspector _____ Date 2-Dec-1966 Sheet 1 of 5

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
				℄ of existing ditch - slightly compact to dense
	12		4 Std. 5 Pen.	brown-slightly silty near surface-very fine
			7 1 8	to fine sand, clean
5				
			7 Std.	
	16		7 Pen. 9 2	
			9	
10				
			10 Std.	
	42		18 Pen. 24 3	(samples moist to 10.5 - wet thereon)
			30	
5				
			10 Std.	
	31		13 Pen	
			18 4 20 4	(thin layer fine gravel at 16.5)
0				

Hole No. H-1 Sub Section Ebey Slough to Quilceda Creek Sheet 2 of 5

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL.
			8 Std.	
			15 Pen	(Trace of Silt)
	36		21 5	
			75	
25				
	44		13 Std.	
			21 Pen.	dense brown slightly silty all sizes sand & fine
			23 6	
			36	& mediumlgravel
30				
	32		6 Std.	
			12 Pen.	compact to dense brown very fine sand-quite clean
			20 7	
			26	
35				
			12 Std.	
			16 Pen.	
	36		20 8	
			24	
40				
			6 Std.	
	29		13 Pen.	
			16 9	
			18	
45				

Log of Test Borings

Hole No. H-1 Sub Section Ebey Slough to Quilceda Creek Sheet 8 of 5

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
	25		11 Std. 14 Pen.	
	15		10 10 5	slightly compact grey silt & extremely fine
				to fine sand, with occasional thin layer (up
50				to 1 ft) clayey silt or silty clay
			B_C U-11	
			6	
	16		8 Std. 8 Pen.	
55			10 12	
			D_{E_F} U-13	
			6	
	18		8 Std. 10 Pen.	
60			9 14	
			D_{E_F} U-15	
			10 Std. 20 Pen.	
	41		21 16 40	Dense brown slightly silty exptremely fine to
65				fine sand
			9 Std.	
	39		15 Pen. 24 17	
			33	
70				

Hole No. H-1 Sub Section Ebey Slough to Quilceda Creek Sheet 4 of 5

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
70				
			7 Std.	
			18 Pen.	
	51		33 18	
			28	
75				
			16 Std.	
			22 Pen.	
	49		27 19	Dense grey extremely fine to fine sand - trace
			32	
				of silt
80				
			16 Std.	
			23 Pen.	
	42		19 20	
			23	
85				
			7 Std.	
			12 Pen.	
	26		14 21	very stiff grey silty clay & compact grey
			12	
				silty extremely fine sand in variable layers
90				
			DEF U-22	
95				

Log of Test Borings

Hole No. H-1 Sub Section Ebey Slough to Quilceda Creek Sheet 5 of 5

DEPTH 55	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			9 Std.	Dense grey slightly silty extremely fine
	50		20 Pen. 30 23	to very fine sand
			19	
100				Stiff grey silty clay & slightly compact
	20		9 Std. 6 Pen.	grey silt & extremely fine sand in variable
			9 24 11	layers
			13	total depth drilled 103.5
105				water level: -8.0 19 hrs. after auger removed

5
198.88 to MP 200.62
y Slough to Quilceda Creek
-4(68)198 - 1968

Log of Test Borings

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STATE HIGHWAY COMMISSION
DEPARTMENT OF HIGHWAYS

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LOG OF TEST BORING

P S.H. 1 S.R. 5 Section Ebey Slough to Quilceda Creek Job No. L-3191
ole No. H-2 Sub Section 4th St. O'Xing Bridge: Pier #2 Cont. Sec. 3104
ation NB 46+09 Offset 1' LT. ℄ Ground El. 19.7
/pe of Boring Auger & Rotary w/Mud 8C48-8 Casing Auger 96.5 W.T. El. 10.7
spector Date 6-Dec-1966 Sheet 1 of 6

TH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
				AT EDGE OF SIDEWALK - compact to dense
			9 Std.	brown slightly silty very fine to fine sand
			12 Pen.	
	25		13 1	
			12	
			6 Std.	
			11 Pen.	(small amount fine gravel in thin layer 7.5)
	23		12 2	
			13	
0				
				(samples moist to 11.5 - wet thereon)
			7 Std.	
			11 Pen.	
	23		12 3	
			16	
5				
			11 Std.	
			17 Pen.	(thin layer fine gravel at 17.0)
	44		27 4	
			28	
0				

Hole No. H-2 Sub Section 4hh St. O'Xing Bridge: Pier #2 Sheet 2 of 6

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			13 Std.	
			16 Pen.	
	35		19 5	
			20	
25				
			9 Std.	
	30		14 Pen.	
			16 6	
			18	
30				
			19 Std.	
	47		21 Pen.	(thin layer fine gravel at 31.5)
			26 7	
			24	
35				
			16 Std.	
			21 Pen.	
	49		28 8	
			37	
40				
			11 Std.	
			18 Pen.	
	36		18 9	
			18	
45				

SR 5 MP 198.88 to MP 200.62
Ebey Slough to Quilceda Creek
I-5-4(68)198 - 1969

Log of Test Borings

Hole No. H-2 Sub Section 4th St. O'Xing Bridge: Pier #2 Sheet 3 of 6

EPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			13 Std.	
			15 Pen.	
	35		20 10	
			33	
50				
	10		10 Std.	slightly compact to very dense grey silt
			5 Pen.	
			5 11	& extremely fine to fine sand, with occasional
			8	
				grey silty clay & clayey silt layers up to 1 ft.
55			C D E U-12	
			13 Std.	
			19 Pen.	
	37		18 13	
			24	
60				
			A B C U-14	
			D	
			27 Std.	
			43 Pen.	
65	96		53 15	
			54	
				dense brown slightly silty extremely fine to
				fine sand
			13 Std.	
			15 Pen.	
	39		24 16	
			38	
70				

SR 5 MP 198.88 to MP 200.62
Ebey Slough to Quilceda Creek
I-5-4(68)198 - 1969

Log of Test Borings

Hole No. H-2 Sub Section 4th St. O'Xing Bridge: Pier #2 Sheet 4 of 6

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			14 Std.	
			21 Pen.	
	52		31 17	
			40	
75				
			11 Std.	
			21 Pen.	
	44		23 18	
			30	dense grey extremely fine to fine sand
80				trace of silt
			19 Std.	
			25 Pen.	
	50		25 19	
			32	
85				
			5 Std.	
			7 Pen.	
	22		15 20	
			26	
90				
			4 Std.	
	15		5 Pen.	stiff grey clayey silt & slightly compact
			10 21	
			15	grey extremely fine to fine sand in variable layers
95			A B C U-22	

Log of Test Borings

SR 5 MP 198.88 to MP 200.62
Ebey Slough to Quilceda Creek
I-5-4(68)198 - 1969

Hole No. H-2 Sub Section 4th St. O'Xing Bridge: Pier #2 Sheet 5 of 6

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			U-23	
			DEF	
100				
				stiff grey silty clay with occasional thin
			5 Std.	
	13		5 Pen.	layer slightly silty extremely fine sand
			8 24	
			14	
105				
			U-25	
			DEF	
110				
			8 Std.	
	20		9 Pen.	
			11 26	
			10	
115				
				compact to dense grey slightly silty extremely
			U-27	fine to very fine sand
			DEF	
120				

Hole No. H-2 Sub Section 4th St. O'Xing Bridge: Pier #2 Sheet 6 of 6

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			13 ▲ Std.	
			23 | Pen.	
	43		20 ▼ 28	
			28	
125				
130				
			16 ▲ Std.	
	45		17 | Pen.	
			28 ▼ 29	
			34	
				total depth drilled 132.0
135				
				stopped drilling at specified depth by J. Klasell
				water level: -9.0 taken immediately upon auger
				removal

Log of Test Borings

SR 5 MP 198.88 to MP 200.62
Ebey Slough to Quilceda Creek
I-5-4(68)198 - 1969

WASHINGTON
STATE HIGHWAY COMMISSION
DEPARTMENT OF HIGHWAYS

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LOG OF TEST BORING

P S.H. 1 S.R. 5 Section Ebay Slough to Quilceda creek Job No. L-3191
Hole No H-3 Sub Section 4th St. O'Xing: Pier No. 3 Cont. Sec. 3104
Station NB 46+66 Offset 1' LT. ℄ Ground El. 19.4
Type of Boring Auger 8C48-8 Casing Auger 41.5 W.T. El. *
Inspector _____ Date Dec 13, 1966 Sheet 1 of 2

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
				1 ft. slightly compact, then loose to dense
	8		2 Std. 4 Pen. 4 1 7	brown slightly silty very fine to fine sand
5				
	21		6 Std. 9 Pen. 12 2 14	
10				
	26		6 Std. 12 Pen. 14 3 19	
15				
	26		10 Std. 13 Pen. 13 4 15	
20				

Hole No. H-3 Sub Section 4th St. O'Xing: Pier No. 3 Sheet 2 of 2

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			11 ▲ Std.	
			10 Pen.	
	24		14 5	
			14 ▼	
25				
			12 ▲ Std.	
			21 Pen.	
	45		24 6	
			25 ▼	
30				
			11 ▲ Std.	
			16 Pen.	
	36		20 7	
			25 ▼	
35				
			12 ▲ Std.	
			24 Pen.	
	50		26 8	
			25 ▼	
40				
				* Samples moist to 11.0 - wet thereon
				water level: hole caved at -4.0' upon auger removal
			9 ▲ Std.	
	40		16 Pen.	
			24	
			25 ▼ 9	drilling stopped upon verification of same
45				material as at H-2

SR 5 MP 198.88 to MP 200.62
Ebey Slough to Quilceda Creek
I-5-4(68)198 - 1969

Log of Test Borings

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DEPARTMENT OF HIGHWAYS

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LOG OF TEST BORING

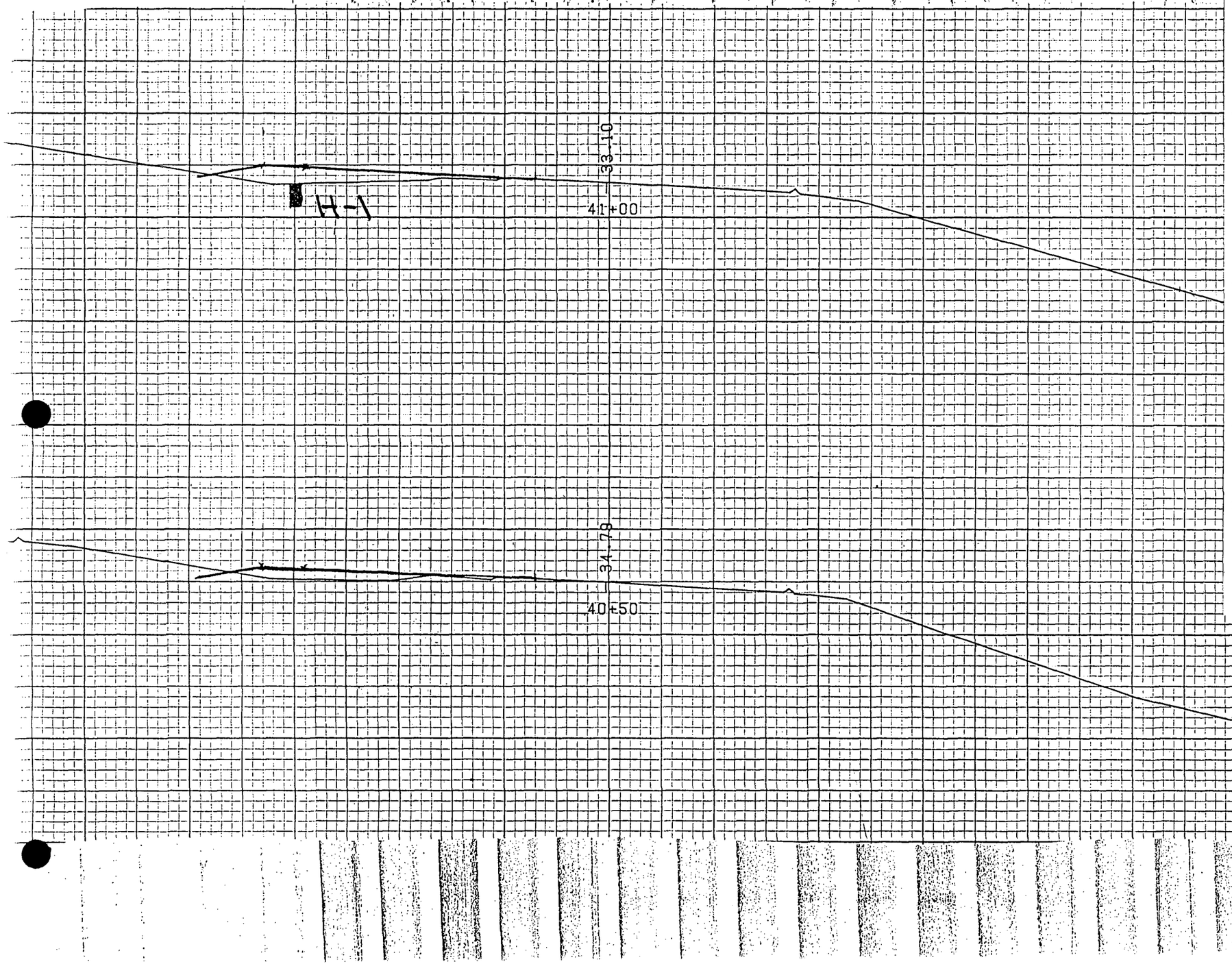
P S.H. 1 S.R. 5 Section 4th St. O'Xing Bridge: pier #4 Job No. L-3191
Hole No. H-4 Sub Section Ebey Slough to Quilceda Creek Cont. Sec. 3104
Station NB 47+16 Offset ON ℄ Ground El. 18.7
Type of Boring Auger 8C48-8 Casing Auger 36.5 W.T. El. *
Inspector _____ Date 14-Dec-1966 Sheet 1 of 2

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
				very loose to dense brown slightly
	4		2 Std. 2 Pen 2 1	silty very fine to fine sand
			3	retained 2.0
			6 Std. 6 Pen. 8 2 10	6.5 to 8.5 retained 1.7 (3 inch layer of fine & medium gravel at 7.0)
	14			
0				
				*(Samples moist to 11.5 - wet thereon)
			8 Std. 11 Pen. 15 3 18	11.5 to 13.5 retained 1.7
	26			
5				
			13 Std. 18 Pen. 23 4 27	17.5 to 19.5 retained 1.6
	41			
0				

Hole No. H-4 Sub Section 4th St. O'Xing Bridge: Pier #4 Sheet 2 of 2

DEPTH	BLOWS PER FT.	PROFILE	SAMPLE TUBE NOS.	DESCRIPTION OF MATERIAL
			10 ▲ Std.	21.5 to 23.5 retained 1.6
			12 Pen.	
	24		12 | 5	
			13 ▼	
25				
			15 ▲ Std.	26.5 to 28.5 retained 1.4
			20 Pen.	(thin layer fine gravel at 26.5)
	47		27 | 6	
			35 ▼	
30				
			7 ▲ Std.	31.5 to 33.5 retained 1.7
			13 Pen.	
	34		21 | 7	
			29 ▼	
35				
			10 ▲ Std.	36.5 to 38.5 retained 1.8
			19 Pen.	(6" layer clayey silt at 37.0)
	48		29 | 8	
			39 ▼	
40				
				total depth drilled 38.5
				stopped drilling at specified depth by J. Klasell
45				*water level: not obtained hole caved at -3.0 immediately upon auger removal

Log of Test Borings



JOB NO. L-0843 HWY. NO. 5 SHEET 1 OF 1

SECTION SR 5 / SR 528
NB offramp
STA. 41+00 OFFSET 30.0' Lt. ELEV. 33.1

EQUIPMENT Hand tools DATE 10-15-91

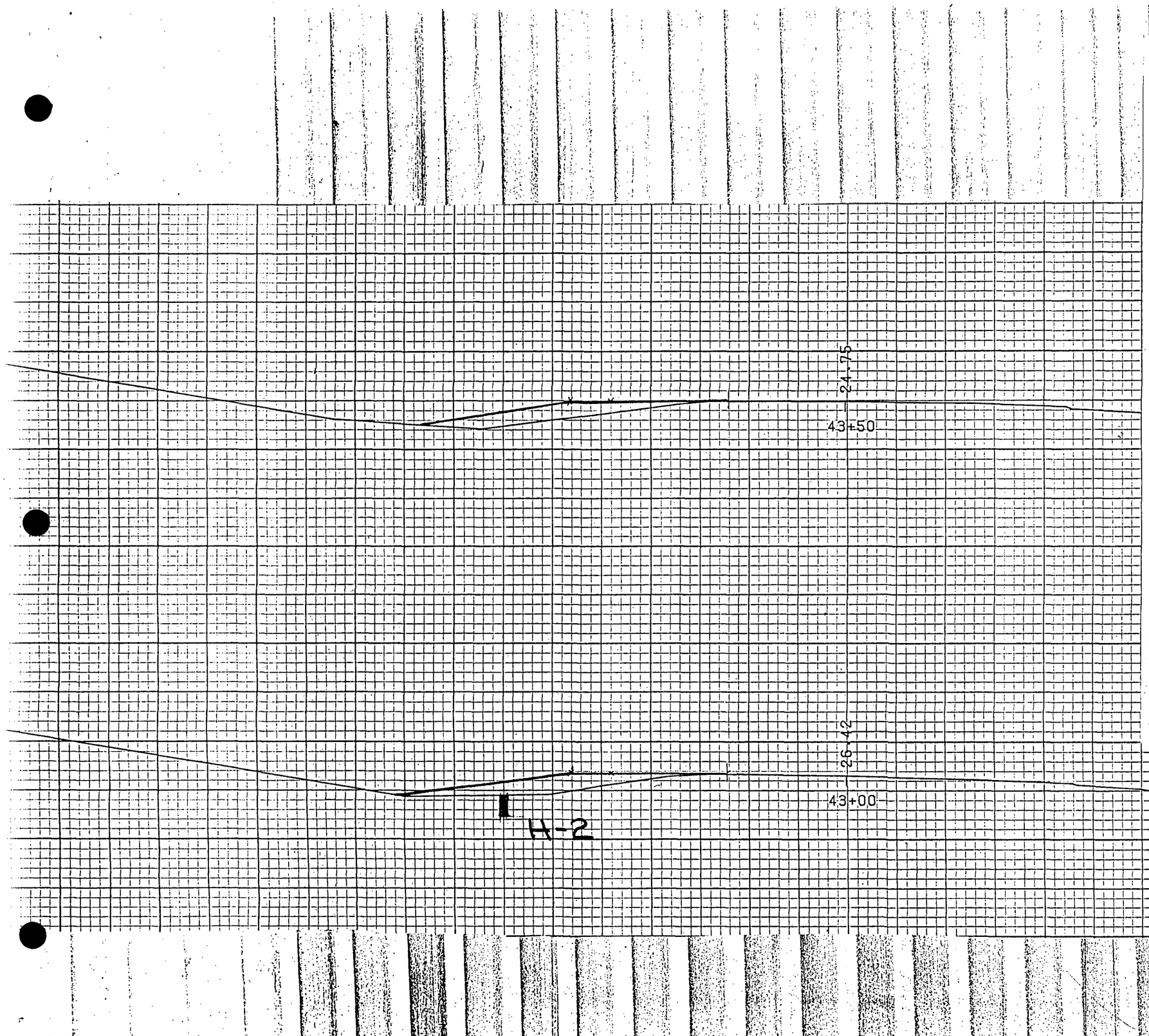
INSPECTOR D.L.C. HOLE NO. H-1

DEPTH	BLOWS PER FOOT	PROFILE	TUBE SAMPLE NO.	4 Lines = 1.0' DESCRIPTION OF MATERIAL
				Fill
2				SOD
				brown dense dry slightly silty slightly gravelly fine to medium SAND
1e				
				No free water
2e				End of Boring - 2.0'

DOT FORM 350-017 REVISED 9/83 -710-

SR 5 OL 0843
4th St/SR 528 INTCH.
NB OFF RAMP

2/6



JOB NO. L-0843 HWY. NO. 5 SHEET 1 OF 1

SECTION SR 5 / SR 528

STA. 43+08 NB offramp OFFSET 35.0' Lt ELEV. 24.5

EQUIPMENT Hand tools DATE 10-15-91

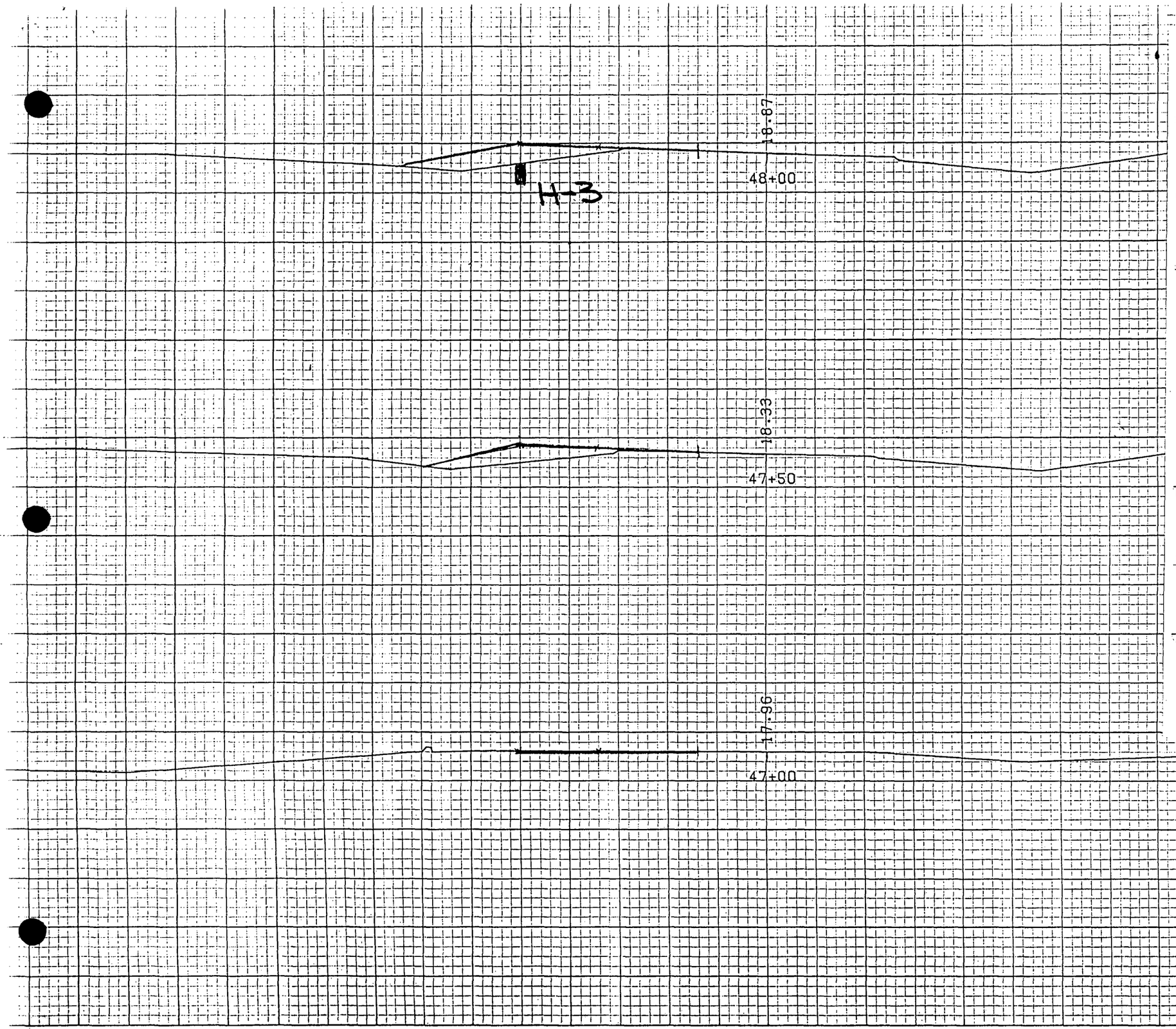
INSPECTOR D.C. HOLE NO. H-2

DEPTH	BLOWS PER FOOT	PROFILE	TUBE SAMPLE NO.	4 Lines = 1.0' DESCRIPTION OF MATERIAL
				Fill
.2				SOD
				brown dense dry slightly
1.0				silty slightly gravelly
				fine to medium SAND
2.0				No free water
				End of Boring -2.0'

DOT FORM 350-017 REVISED 9/83 -710-

SR 5 OL 0843
4th St/SR 528 INTCH.
NB OFF RAMP

3/6



JOB NO. L-0843 HWY. NO. 5 SHEET 1 OF 1

SECTION SR 5 / SR 528
SB Offramp

STA. 48+00 OFFSET 25.0' Lt ELEV.

EQUIPMENT Hand Tools DATE 10-15-91

INSPECTOR A.C. HOLE NO. H-3

4 Lines = 1.0'

DEPTH	BLOWS PER FOOT	PROFILE	TUBE SAMPLE NO.	DESCRIPTION OF MATERIAL
				O.G
.2				SOD
				brown dease dry
1e				slightly silty slightly gravelly
				fine to medium SAND
7e				
				No free water
				End of Boring -2.0'

DOT FORM 350-017 REVISED 9/83 -710-

SR 5 OL 0843
4th St/SR 528 INTCH.
SB OFF RAMP

6/6

JOB NO. L-0843 HWY. NO. 5 SHEET 1 OF 1

SECTION SR 5 / SR 528 SB on ramp

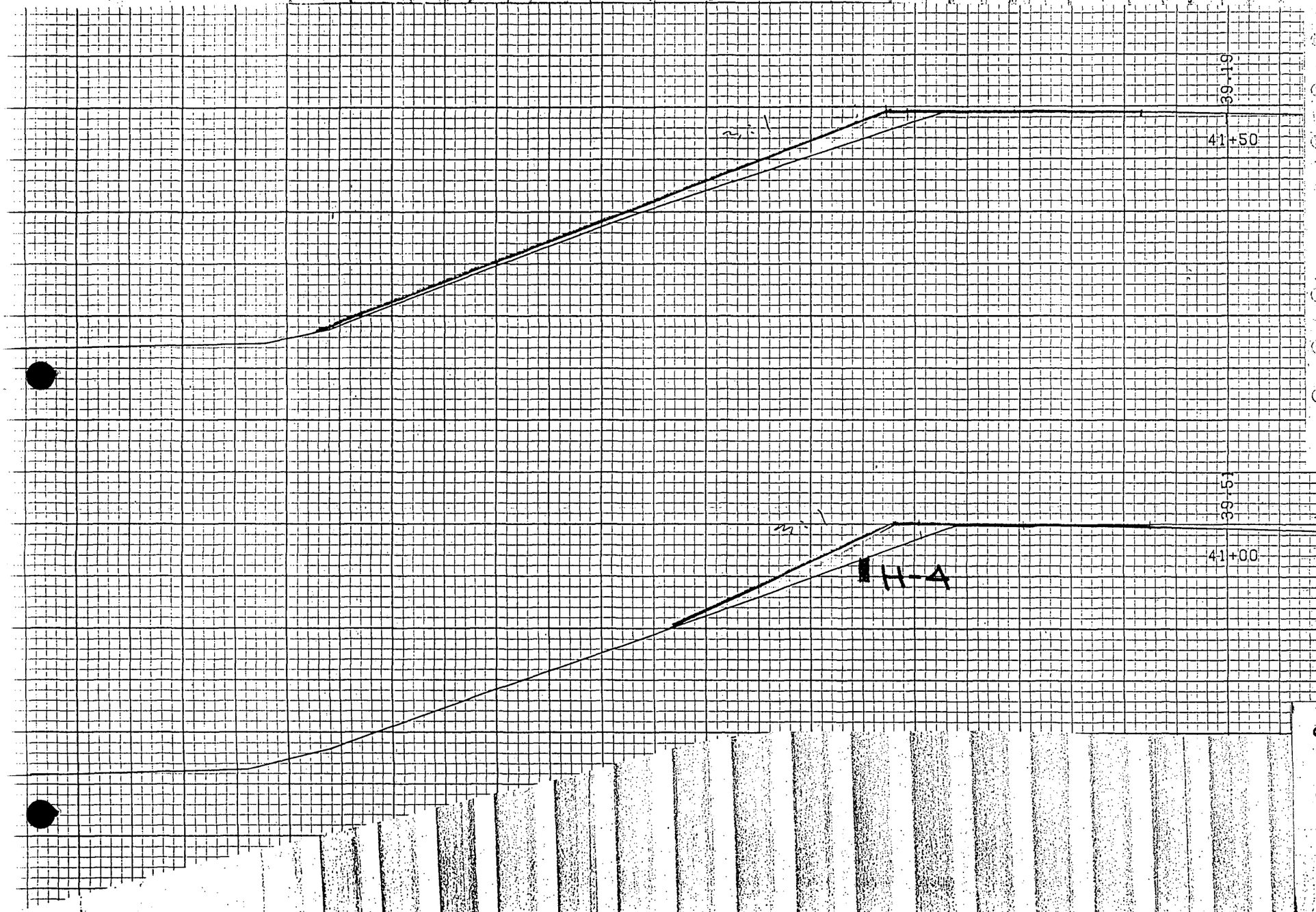
STA. 41+00 OFFSET 35.0' Lt ELEV. 36.6'

EQUIPMENT Hand Tools DATE 10-15-91

INSPECTOR A.C. HOLE NO. H-4

DEPTH	BLOWS PER FOOT	PROFILE	TUBE SAMPLE NO.	# Lines = 1.0' DESCRIPTION OF MATERIAL
				Fill
.2				SOD
				brown moist dense slightly silty slightly gravelly fine to medium SAND
1.0				
2.0				No free water
				End of Boring -2.0'

DOT FORM 350-017 REVISED 9/83 -710-

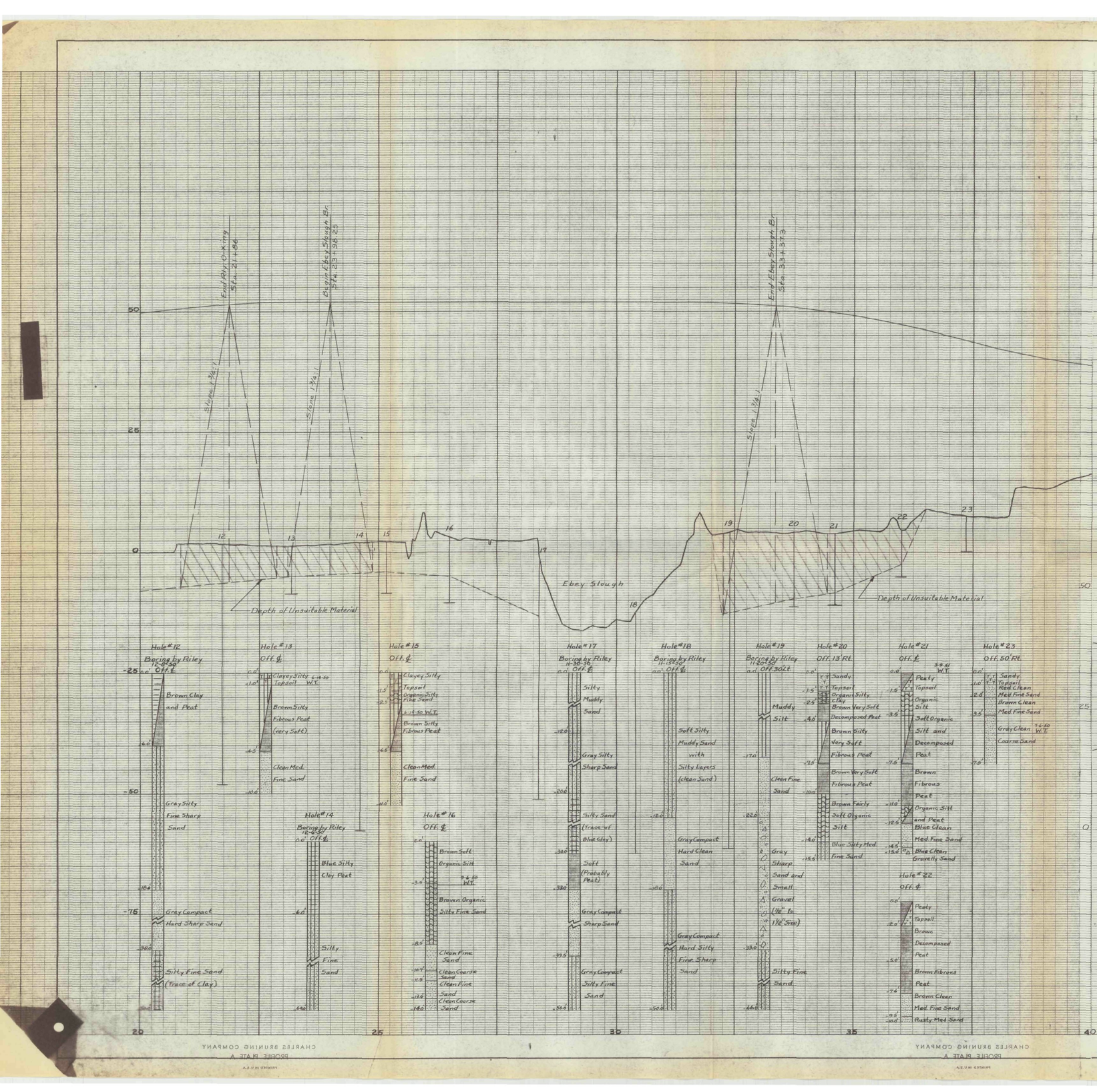


SR 5 OL 0843

4th St / SR 528 INTCH

SB ON RAMP

4/6

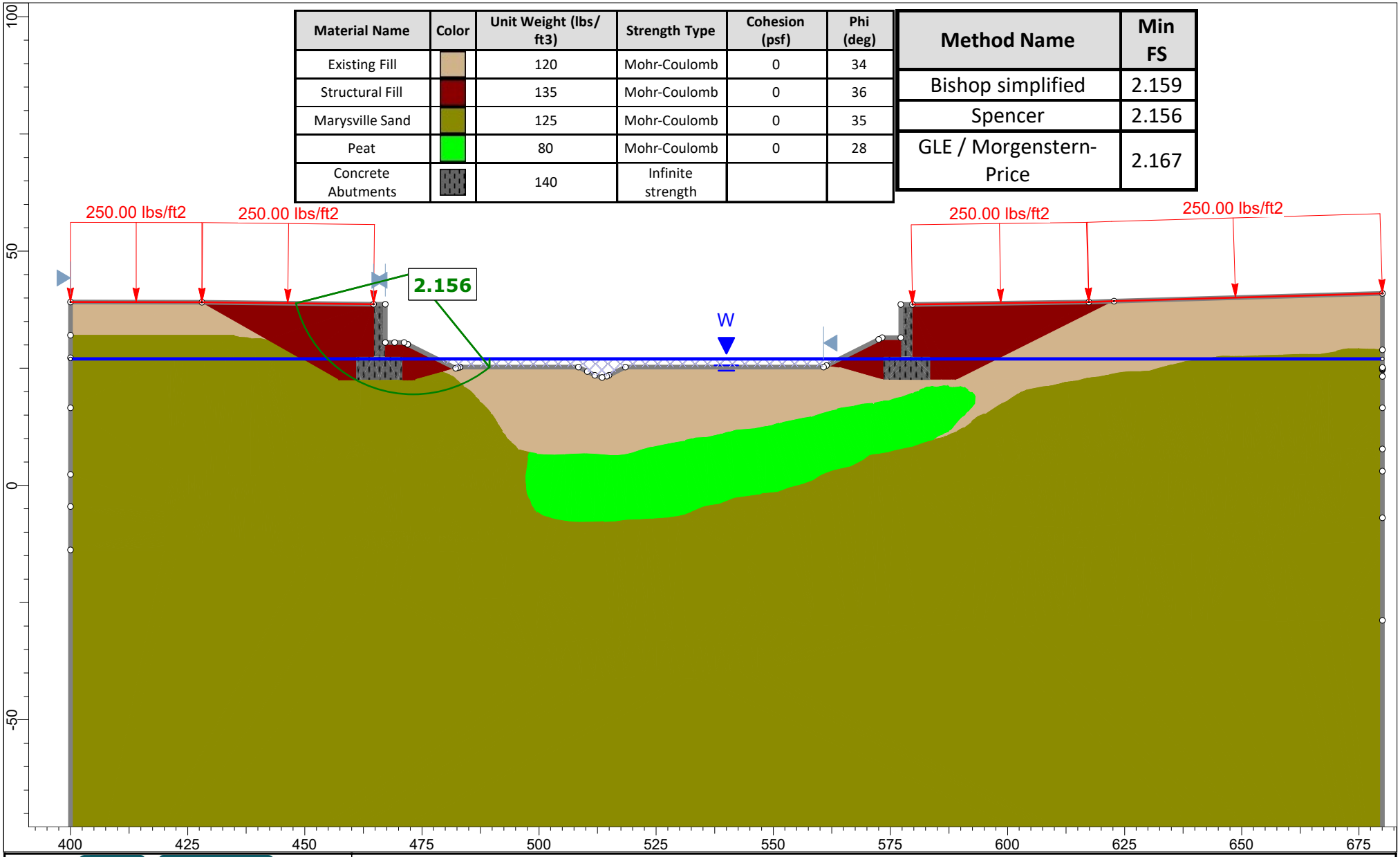

Ebey Slough
Depth of Unsuitable Material
Depth of Unsuitable Material
End Ry. Oxing
Sta. 21+86
Slope 3H:1V
Begin Ebey Slough Br.
Sta. 23+98.25
Storm Wall
End Ebey Slough Br.
Sta. 33+37.3
Slope 3H:1V
Hole #12
Boring by Riley
11-29-56
Off ℄
Brown Clay and Peat
Gray Silty Fine Sharp Sand
Gray Compact Hard Sharp Sand
Silty Fine Sand (Trace of Clay)
Hole #13
Off ℄
Clayey Silty Topsoil
W.T.
Brown Silts Fibrous Peat (very Soft)
Clean Med. Fine Sand
Hole #14
Boring by Riley
12-6-56
Off ℄
Blue Silty Clay Peat
Silty Fine Sand
Hole #15
Off ℄
Clayey Silty Topsoil
Organic Silts Fine Sand
W.T.
Brown Silts Fibrous Peat
Clean Med. Fine Sand
Hole #16
Off ℄
Brown Soft Organic Silt
W.T.
Brown Organic Silty Fine Sand
Clean Fine Sand
Clean Coarse Sand
Clean Fine Sand
Clean Coarse Sand
Hole #17
Boring by Riley
11-30-56
Off ℄
Silty Muddy Sand
Gray Silty Sharp Sand
Silty Sand (trace of Blue Clay)
Soft (Probably Peat)
Gray Compact Sharp Sand
Gray Compact Silty Fine Sand
Hole #18
Boring by Riley
11-28-56
Off ℄
Soft Silty Muddy Sand with Silty Layers (clean Sand)
Gray Compact Hard Clean Sand
Gray Compact Hard Silty Fine Sharp Sand
Hole #19
Boring by Riley
11-28-56
Off 30' Lt
Muddy Silt
Clean Fine Sand
Gray Sharp Sand and Small Gravel (1/4" to 1 1/2" Size)
Silty Fine Sand
Hole #20
Off 13' Rt.
Sandy Topsoil
Organic Silty Clay
Brown Very Soft Decomposed Peat
Brown Silty Very Soft Fibrous Peat
Brown Very Soft Fibrous Peat
Brown Fairly Soft Organic Silt
Blue Silty Med. Fine Sand
Hole #21
Off ℄
W.T.
Peaty Topsoil
Organic Silt
Soft Organic Silt and Decomposed Peat
Brown Fibrous Peat
Organic Silt and Peat
Blue Clean Med. Fine Sand
Blue Clean Gravelly Sand
Hole #22
Off ℄
Peaty Topsoil
Brown Decomposed Peat
Brown Fibrous Peat
Brown Clean Med. Fine Sand
Rusty Med. Sand
Hole #23
Off 50' Rt.
Sandy Topsoil
Red Clean Med. Fine Sand
Brown Clean Med. Fine Sand
Gray Clean Coarse Sand
W.T.
SLOUGH
EBEY
Corporate Limits of Marysville
"E" 12+21.3
"E" 10
"E" 7+48.8 PT
Reservation Boundary
Abandoned Mill
Pre-Burnt Homes Mill
"E" 1+78.8 PC
"E" 3+38 PT
R/W Line
FIRST ST
"E" 0+00.0 PC
4th St. O-Xing
Sta. 2+34
Hole #24
Off 142' Rt.
Sandy Topsoil
Red Clean Med. Fine Sand
Brown Clean Med. Fine Sand
Gray Clean Med. Coarse Sand
W.T.
Gray Clean Coarse Sand
Hole #25
Boring by Riley
11-27-56
Gray Sand
Gray Compact Sharp Sand
Gray Compact Sharp Silty Sand
Hole #26
Boring by Riley
11-29-56
Brown Sand
Gray Compact Sharp Sand
Gray Compact Sharp Silty Sand
Hole #27
Off 156' Rt.
Sandy Topsoil
Red Clean Med. Fine Sand
Brown Clean Med. Fine Sand
Brown Clean Med. Coarse Sand
Gray Clean Coarse Sand
W.T.
EBEY SLOUGH NORTH
50' R/W
50' RADIUS
DISTRICT #7 SOILS REPORT
EBEY SLOUGH TO QUILCEDA CREEK
JOB NO. L-3191 C.S. 3104
DATE SEPT. 1966 SCALE: VERT. 1"=10'
Formerly Reported June, 1951 HORIZ. 1"=100'
SHEET NO. 4 of 6
CHARLES BRUNING COMPANY
PROFILE PLATE A
PRINTED IN U.S.A.

APPENDIX D

SLOPE STABILITY ANALYSIS

Material Name	Color	Unit Weight (lbs/ ft3)	Strength Type	Cohesion (psf)	Phi (deg)
Existing Fill		120	Mohr-Coulomb	0	34
Structural Fill		135	Mohr-Coulomb	0	36
Marysville Sand		125	Mohr-Coulomb	0	35
Peat		80	Mohr-Coulomb	0	28
Concrete Abutments		140	Infinite strength		

Method Name	Min FS
Bishop simplified	2.159
Spencer	2.156
GLE / Morgenstern-Price	2.167



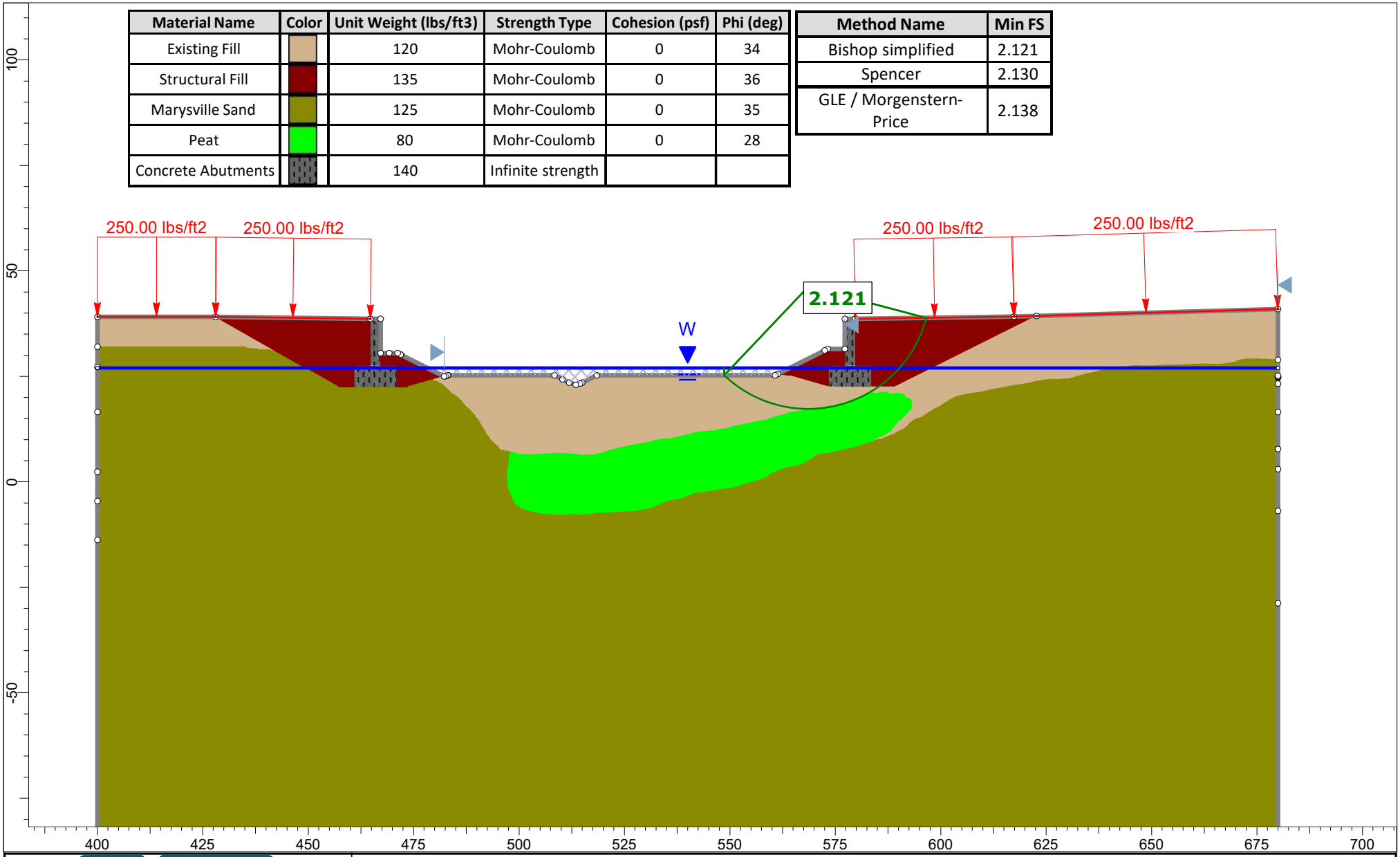
HWA GEOSCIENCES INC.

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements
Analysis Description	Western Abutment Global Stability - Static
Drawn By	YNAN/SRB
Company	HWA Geosciences, Inc.
Date	9/17/2025
Figure	Figure D-1

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)
Existing Fill		120	Mohr-Coulomb	0	34
Structural Fill		135	Mohr-Coulomb	0	36
Marysville Sand		125	Mohr-Coulomb	0	35
Peat		80	Mohr-Coulomb	0	28
Concrete Abutments		140	Infinite strength		

Method Name	Min FS
Bishop simplified	2.121
Spencer	2.130
GLE / Morgenstern-Price	2.138



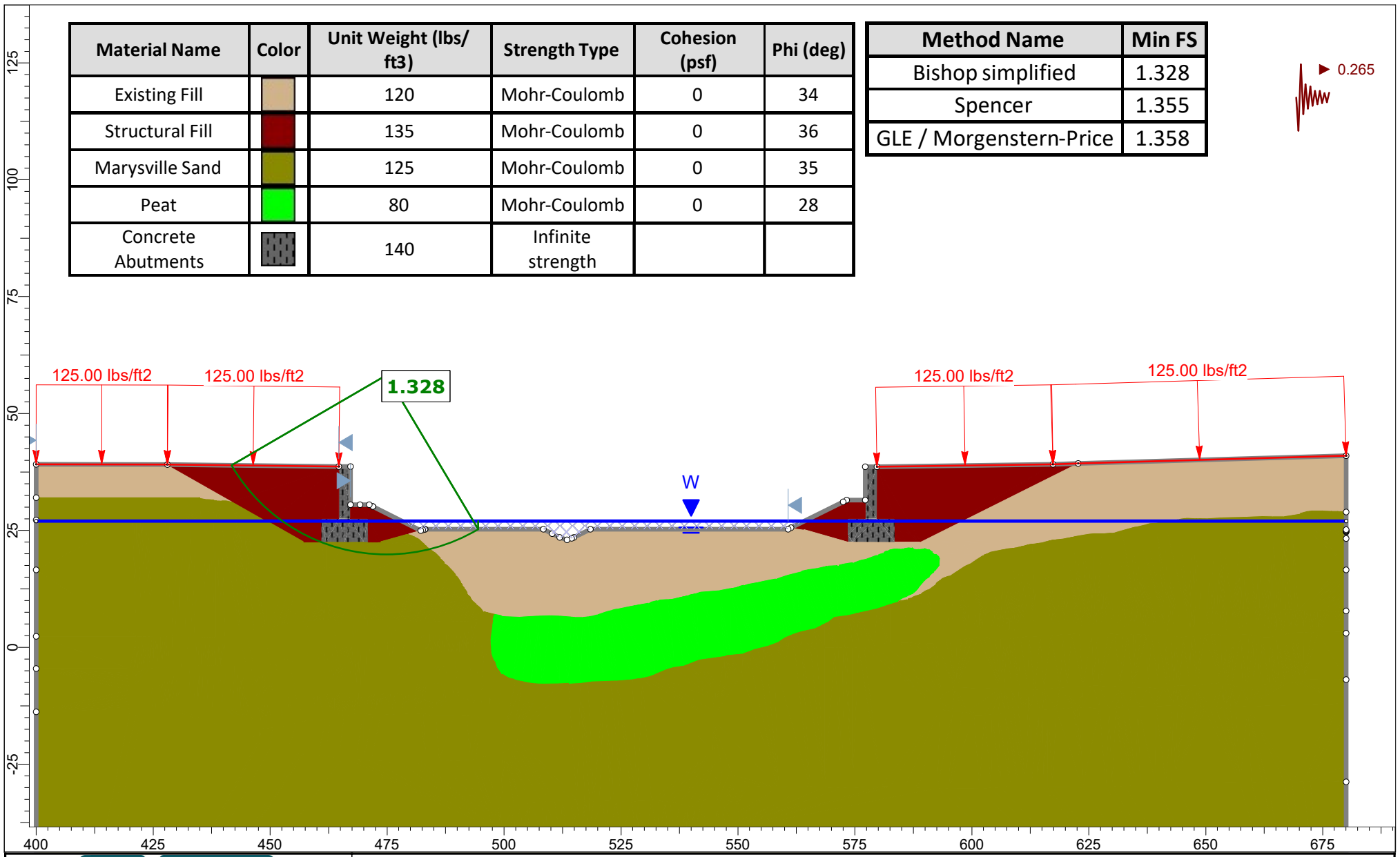
Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Eastern Abutment Global Stability - Static		
Drawn By	YNAN/SRB	Company	HWA Geosciences, Inc.
Date	9/17/2025	Figure	Figure D-2

HWA GEOSCIENCES INC.

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ ft3)	Strength Type	Cohesion (psf)	Phi (deg)
Existing Fill		120	Mohr-Coulomb	0	34
Structural Fill		135	Mohr-Coulomb	0	36
Marysville Sand		125	Mohr-Coulomb	0	35
Peat		80	Mohr-Coulomb	0	28
Concrete Abutments		140	Infinite strength		

Method Name	Min FS
Bishop simplified	1.328
Spencer	1.355
GLE / Morgenstern-Price	1.358



HWA GeoSciences Inc.

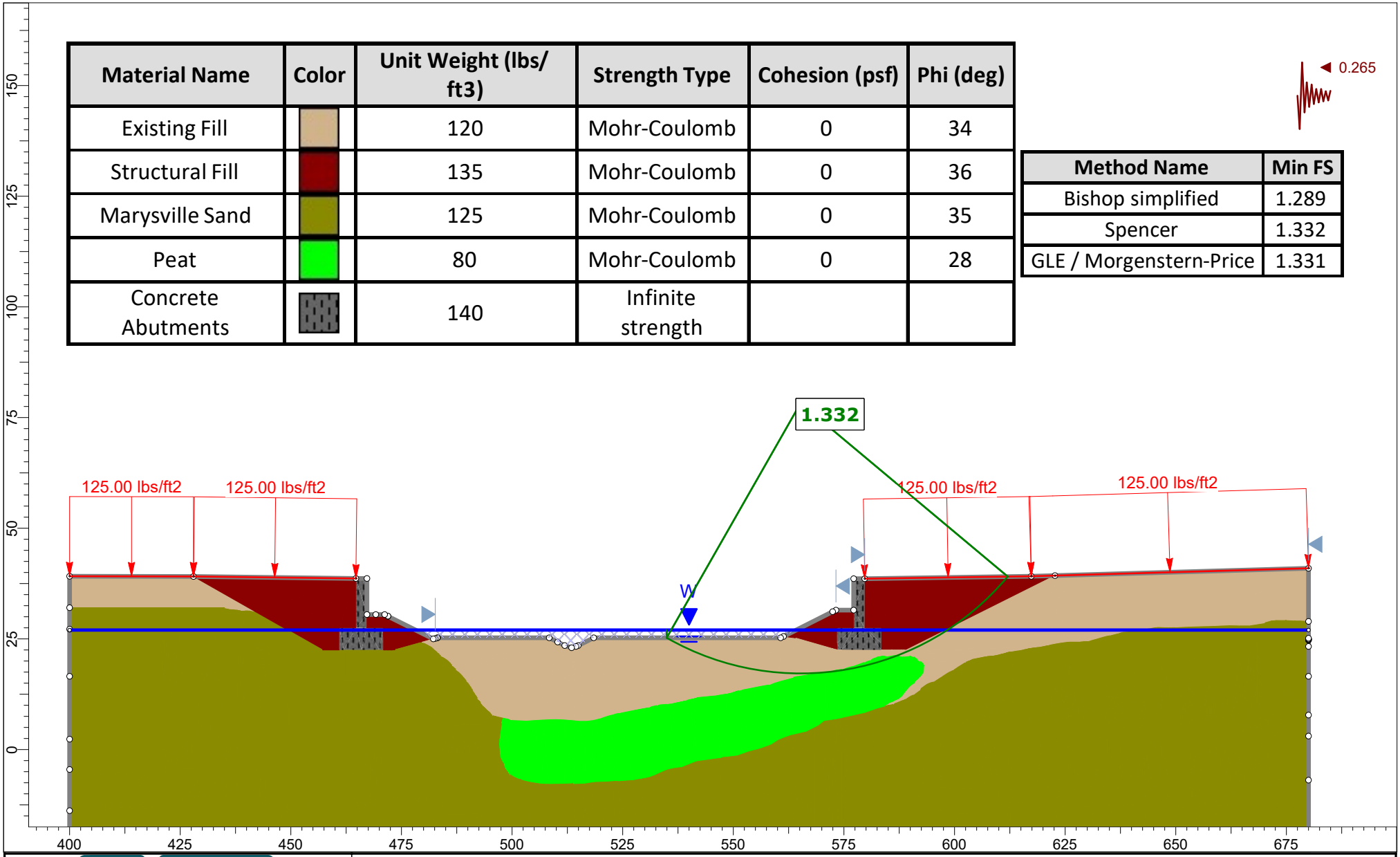
Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Western Abutment Global Stability - Pseudo Static		
Drawn By	YNAN/SRB	Company	HWA Geosciences, Inc.
Date	9/17/2025	Figure	Figure D-3

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ ft3)	Strength Type	Cohesion (psf)	Phi (deg)
Existing Fill		120	Mohr-Coulomb	0	34
Structural Fill		135	Mohr-Coulomb	0	36
Marysville Sand		125	Mohr-Coulomb	0	35
Peat		80	Mohr-Coulomb	0	28
Concrete Abutments		140	Infinite strength		

0.265

Method Name	Min FS
Bishop simplified	1.289
Spencer	1.332
GLE / Morgenstern-Price	1.331



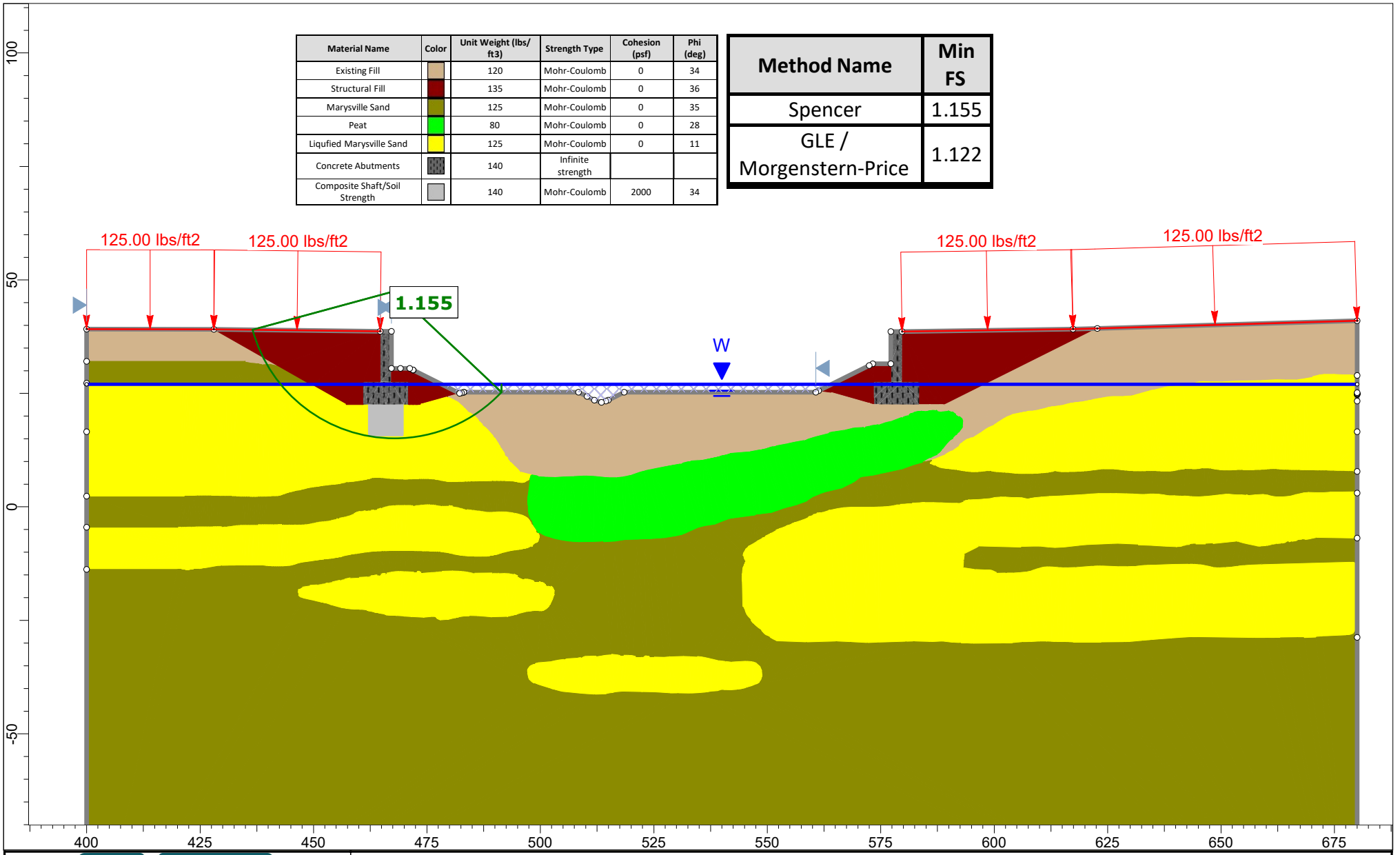
HWA GEOSCIENCES INC.

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements
Analysis Description	Eastern Abutment Global Stability - Pseudo Static
Drawn By	YNAN/SRB
Company	HWA Geosciences, Inc.
Date	9/17/2025
Figure	Figure D-4

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)
Existing Fill		120	Mohr-Coulomb	0	34
Structural Fill		135	Mohr-Coulomb	0	36
Marysville Sand		125	Mohr-Coulomb	0	35
Peat		80	Mohr-Coulomb	0	28
Liqufied Marysville Sand		125	Mohr-Coulomb	0	11
Concrete Abutments		140	Infinite strength		
Composite Shaft/Soil Strength		140	Mohr-Coulomb	2000	34

Method Name	Min FS
Spencer	1.155
GLE / Morgenstern-Price	1.122

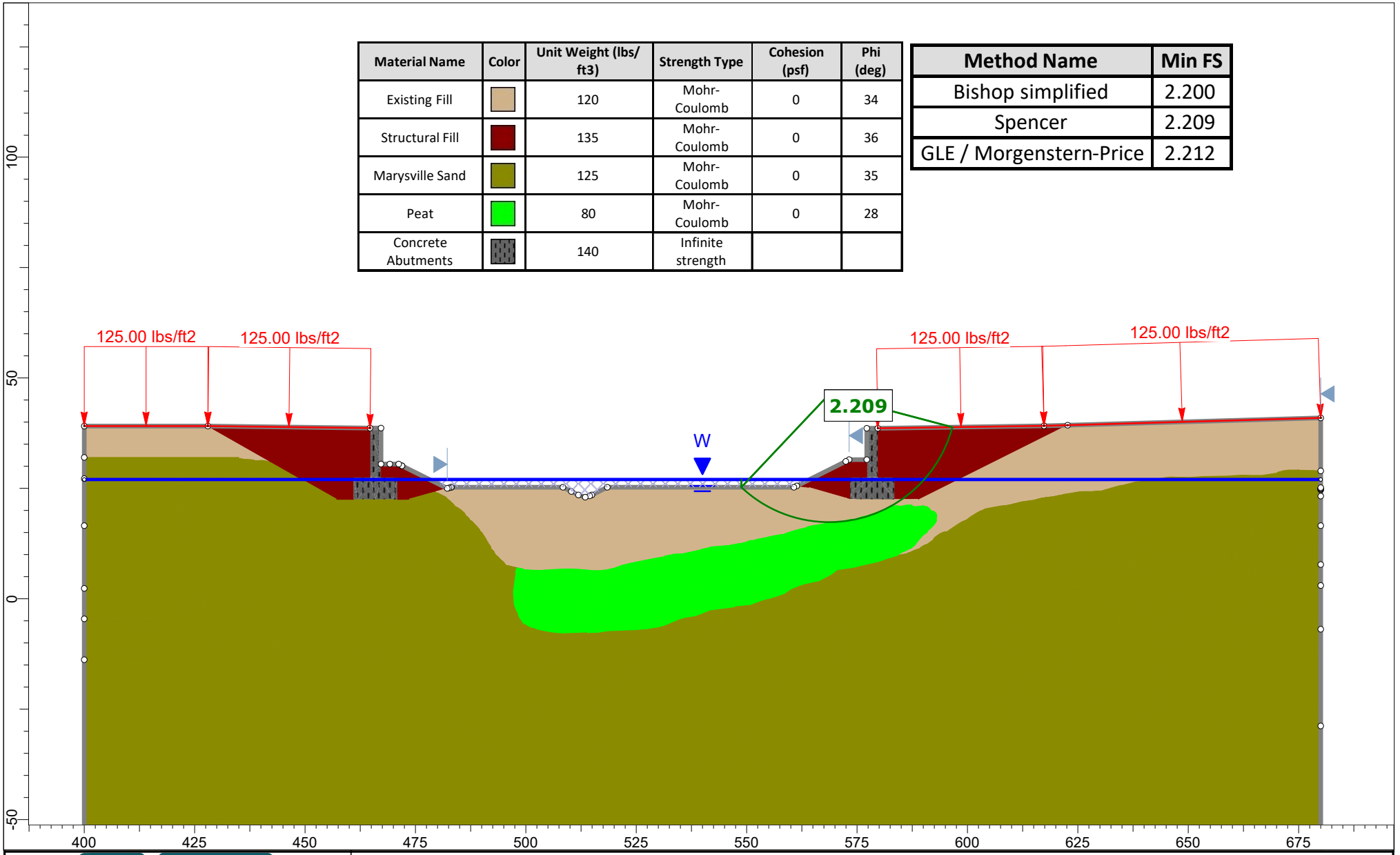


HWA GeoSciences Inc.	*Project*	I-5 / 4th Street & 88th Street NE Interchange Improvements	
	Analysis Description	Western Abutment Global Stability - Post Liquefaction	
	Drawn By	YNAN/SRB	*Company* HWA Geosciences, Inc.
	Date	9/17/2025	*Figure* Figure D-5

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ ft3)	Strength Type	Cohesion (psf)	Phi (deg)
Existing Fill		120	Mohr-Coulomb	0	34
Structural Fill		135	Mohr-Coulomb	0	36
Marysville Sand		125	Mohr-Coulomb	0	35
Peat		80	Mohr-Coulomb	0	28
Concrete Abutments		140	Infinite strength		

Method Name	Min FS
Bishop simplified	2.200
Spencer	2.209
GLE / Morgenstern-Price	2.212



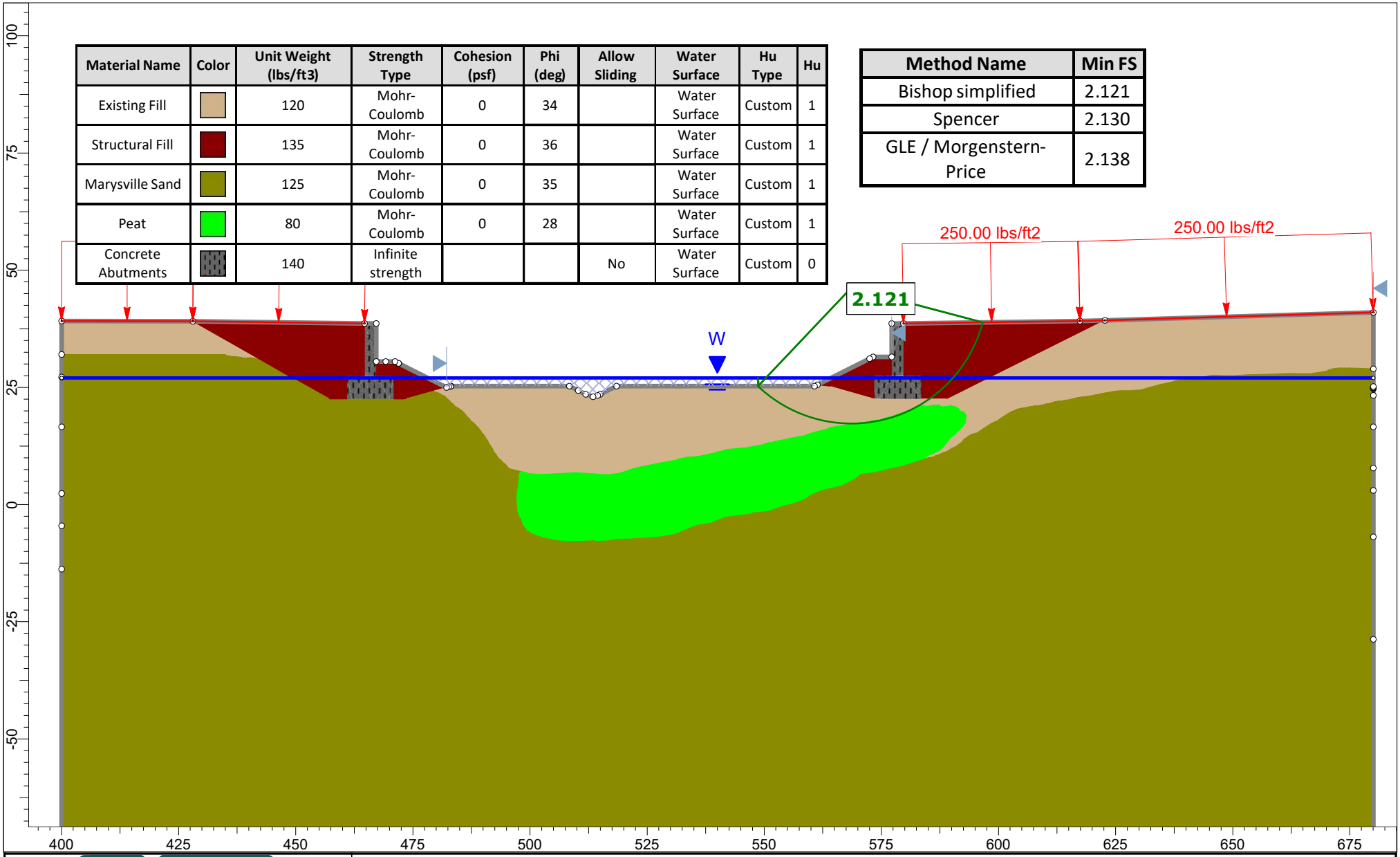
HWA GeoSciences Inc.

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements
Analysis Description	Eastern Abutment Global Stability - Post Liquefaction
Drawn By: YNAN/SRB	Company: HWA Geosciences, Inc.
Date: 9/17/2025	Figure: Figure D-6

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Allow Sliding	Water Surface	Hu Type	Hu
Existing Fill		120	Mohr-Coulomb	0	34		Water Surface	Custom	1
Structural Fill		135	Mohr-Coulomb	0	36		Water Surface	Custom	1
Marysville Sand		125	Mohr-Coulomb	0	35		Water Surface	Custom	1
Peat		80	Mohr-Coulomb	0	28		Water Surface	Custom	1
Concrete Abutments		140	Infinite strength			No	Water Surface	Custom	0

Method Name	Min FS
Bishop simplified	2.121
Spencer	2.130
GLE / Morgenstern-Price	2.138

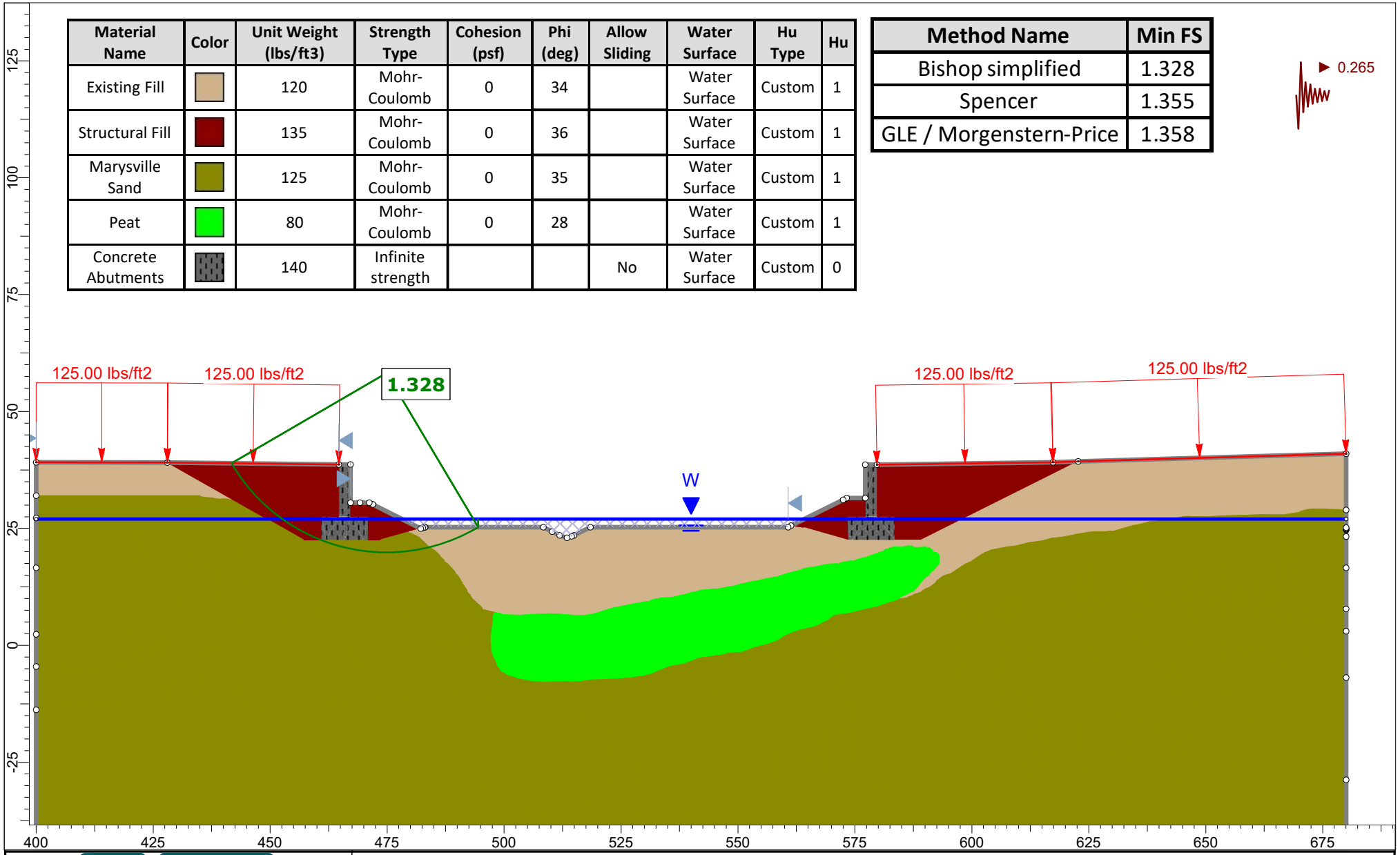


	Project	I-5 / 4th Street & 88th Street NE Interchange Improvements	
	Analysis Description	Eastern Abutment Global Stability - Static	
	Drawn By	YNAN/SRB	Company: HWA Geosciences, Inc.
	Date	9/17/2025	Figure: Figure D-2

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Allow Sliding	Water Surface	Hu Type	Hu
Existing Fill		120	Mohr-Coulomb	0	34		Water Surface	Custom	1
Structural Fill		135	Mohr-Coulomb	0	36		Water Surface	Custom	1
Marysville Sand		125	Mohr-Coulomb	0	35		Water Surface	Custom	1
Peat		80	Mohr-Coulomb	0	28		Water Surface	Custom	1
Concrete Abutments		140	Infinite strength			No	Water Surface	Custom	0

Method Name	Min FS
Bishop simplified	1.328
Spencer	1.355
GLE / Morgenstern-Price	1.358



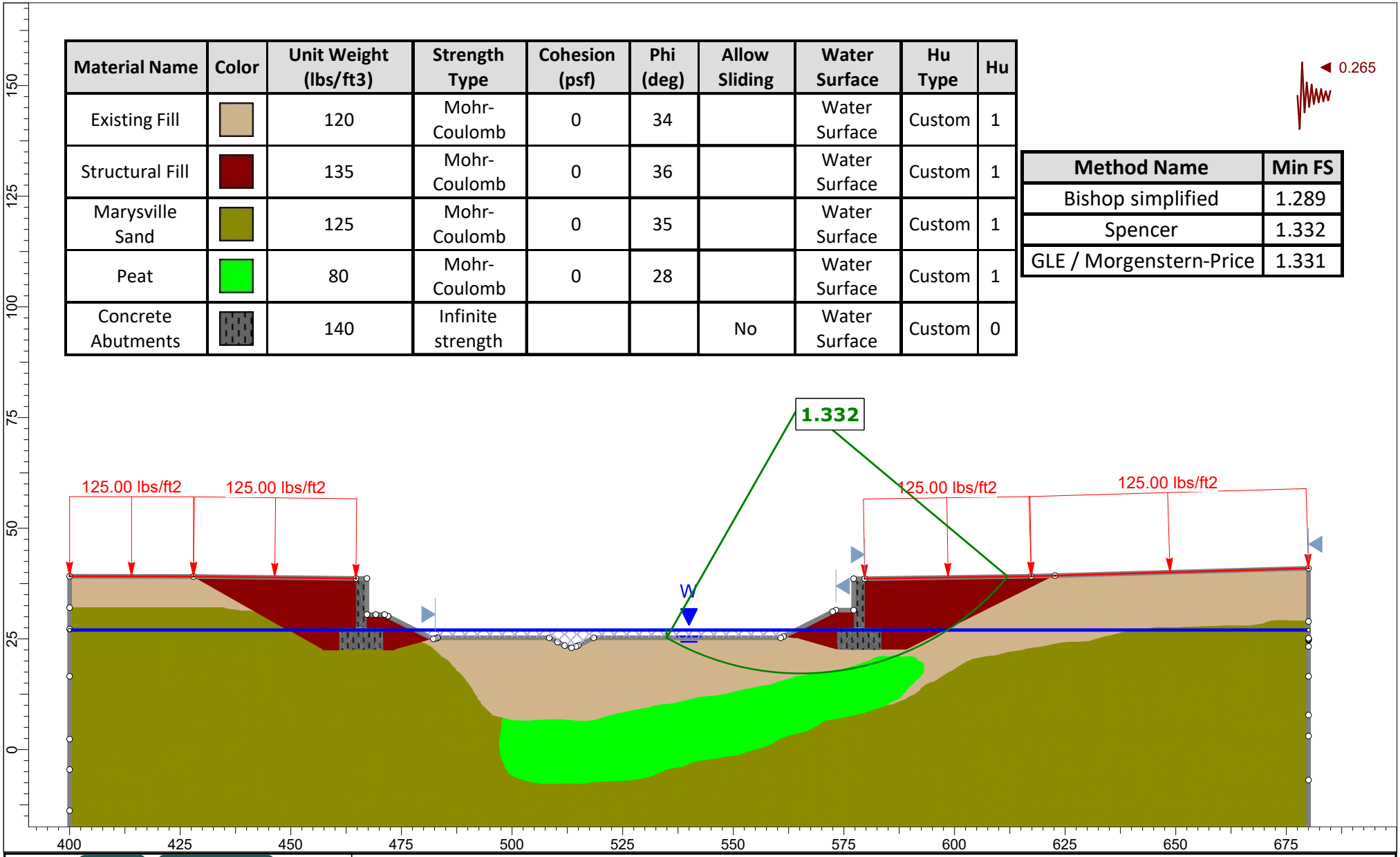
HWA GEOSCIENCES INC.	*Project*	I-5 / 4th Street & 88th Street NE Interchange Improvements	
	Analysis Description	Western Abutment Global Stability - Pseudo Static	
	Drawn By	YNAN/SRB	*Company* HWA Geosciences, Inc.
	Date	9/17/2025	*Figure* Figure D-3

SLIDEINTERPRET 9.012

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Allow Sliding	Water Surface	Hu Type	Hu
Existing Fill		120	Mohr-Coulomb	0	34		Water Surface	Custom	1
Structural Fill		135	Mohr-Coulomb	0	36		Water Surface	Custom	1
Marysville Sand		125	Mohr-Coulomb	0	35		Water Surface	Custom	1
Peat		80	Mohr-Coulomb	0	28		Water Surface	Custom	1
Concrete Abutments		140	Infinite strength			No	Water Surface	Custom	0

0.265

Method Name	Min FS
Bishop simplified	1.289
Spencer	1.332
GLE / Morgenstern-Price	1.331



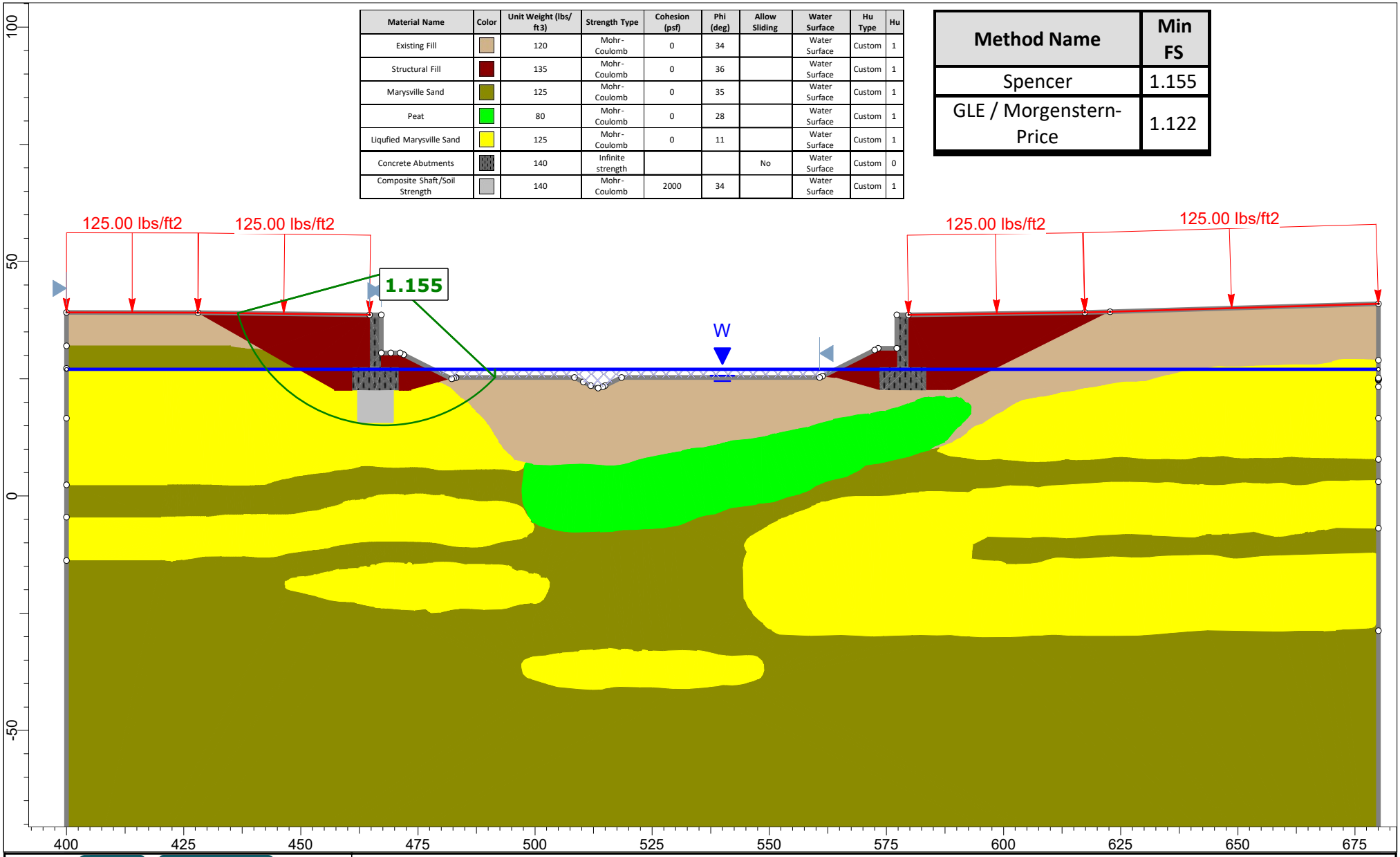
HWA GEOSCIENCES INC.

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements
Analysis Description	Eastern Abutment Global Stability - Pseudo Static
Drawn By	YNAN/SRB
Company	HWA Geosciences, Inc.
Date	9/17/2025
Figure	Figure D-4

SLIDEINTERPRET 9.012

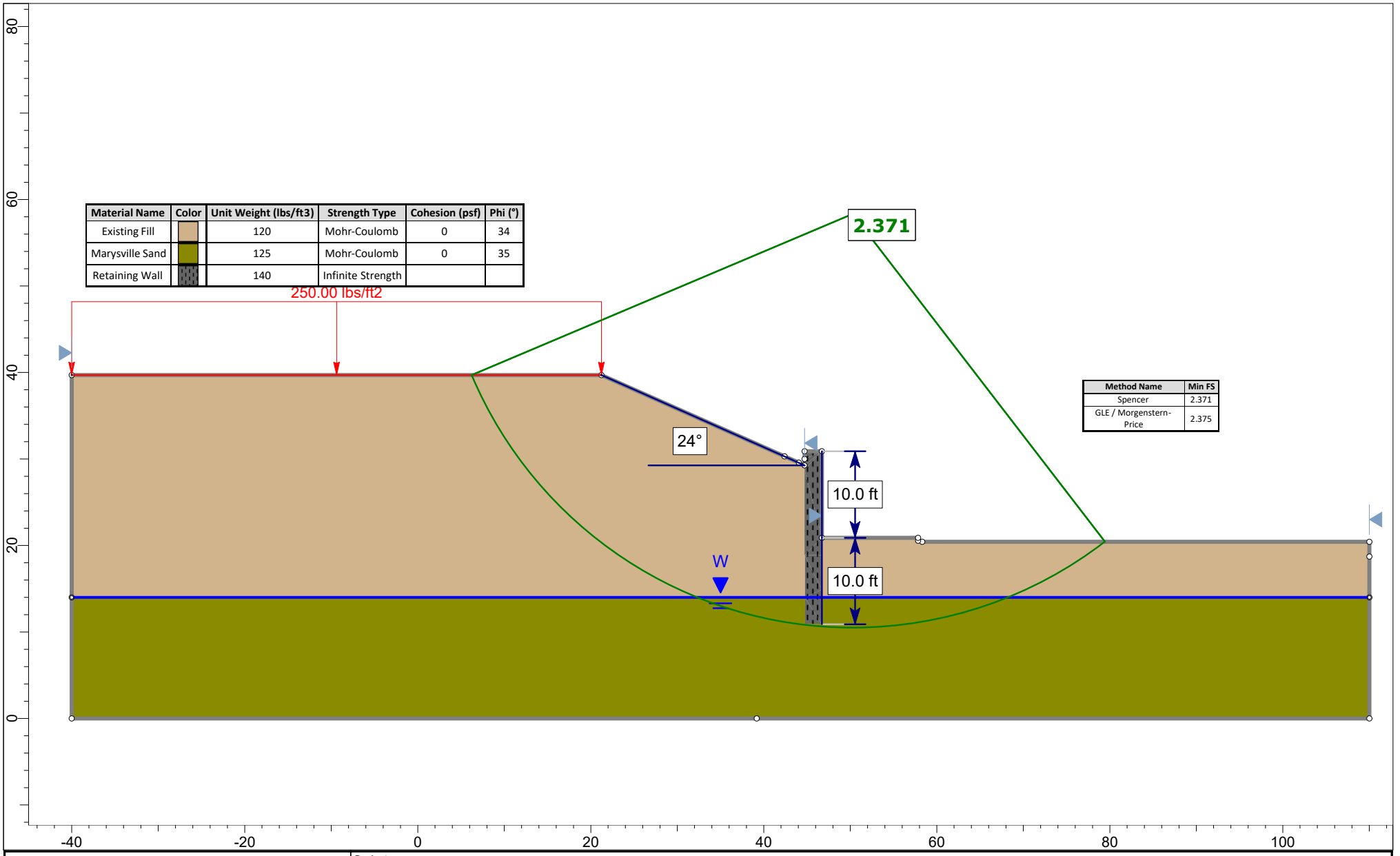
Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Allow Sliding	Water Surface	Hu Type	Hu
Existing Fill		120	Mohr-Coulomb	0	34		Water Surface	Custom	1
Structural Fill		135	Mohr-Coulomb	0	36		Water Surface	Custom	1
Marysville Sand		125	Mohr-Coulomb	0	35		Water Surface	Custom	1
Peat		80	Mohr-Coulomb	0	28		Water Surface	Custom	1
Liqufied Marysville Sand		125	Mohr-Coulomb	0	11		Water Surface	Custom	1
Concrete Abutments		140	Infinite strength			No	Water Surface	Custom	0
Composite Shaft/Soil Strength		140	Mohr-Coulomb	2000	34		Water Surface	Custom	1

Method Name	Min FS
Spencer	1.155
GLE / Morgenstern-Price	1.122



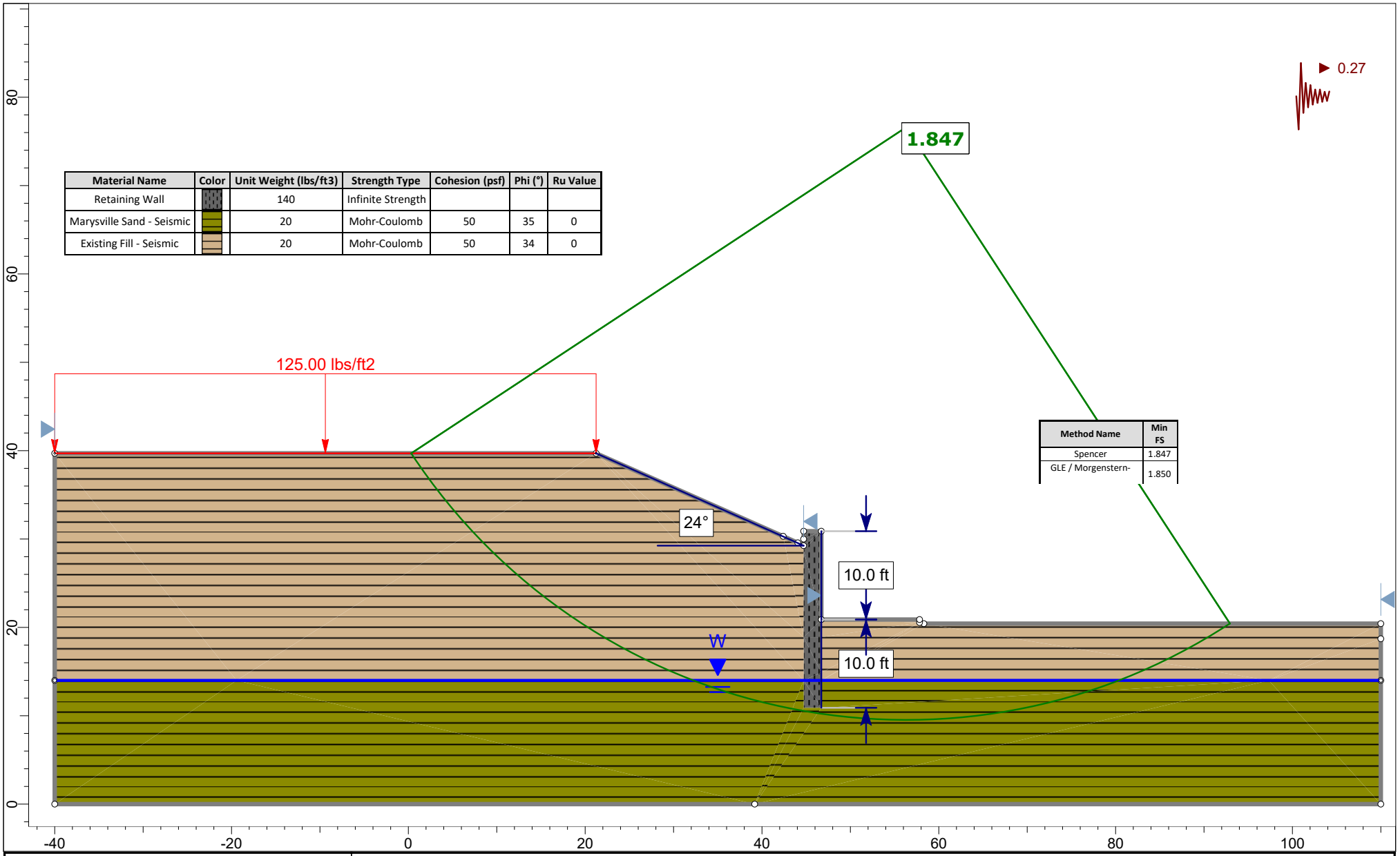
	Project	I-5 / 4th Street & 88th Street NE Interchange Improvements	
	Analysis Description	Western Abutment Global Stability - Post Liquefaction	
	Drawn By	YNAN/SRB	*Company* HWA Geosciences, Inc.
	Date	9/17/2025	*Figure* Figure D-5

SLIDEINTERPRET 9.012



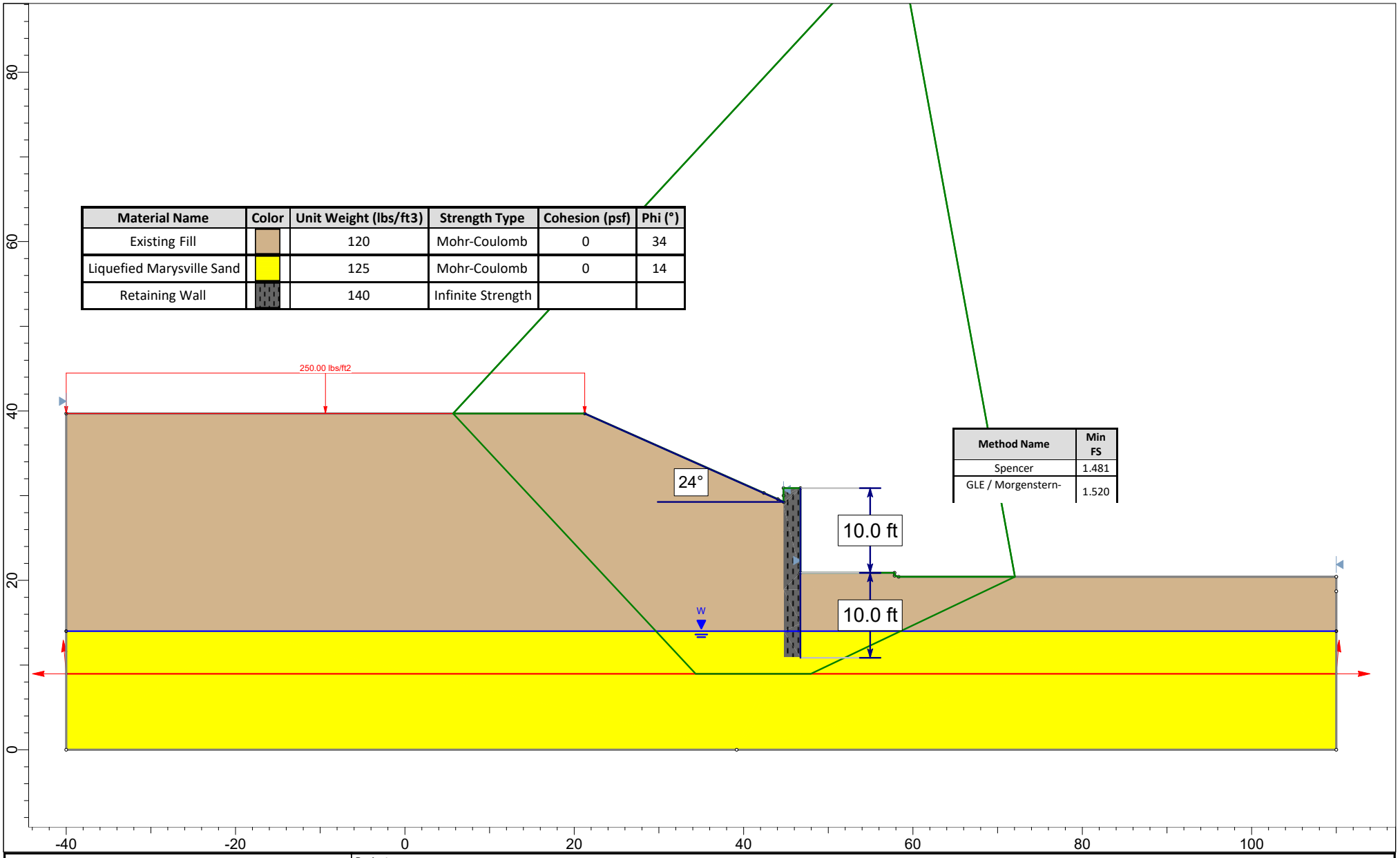
HWA GeoSciences Inc. DBE/MWBE	*Project*	I-5 / 4th Street & 88th Street NE Interchange Improvements	
	Analysis Description	Wall 1 Global Stability - Static	
	Drawn By YNAN/SRB	*Scale* 1:184	*Company* HWA Geosciences Inc.
	Date 3/29/2024		*Figure* Figure D-7

SLIDEINTERPRET 9.032



HWA GeoSciences Inc. DBE/MWBE	*Project* I-5 / 4th Street & 88th Street NE Interchange Improvements		
	Analysis Description Wall 1 Global Stability - Seismic		
	Drawn By YNAN/SRB	*Scale* 1:180	*Company* HWA Geosciences Inc.
	Date 3/29/2024		*Figure* Figure D-8

SLIDEINTERPRET 9.032

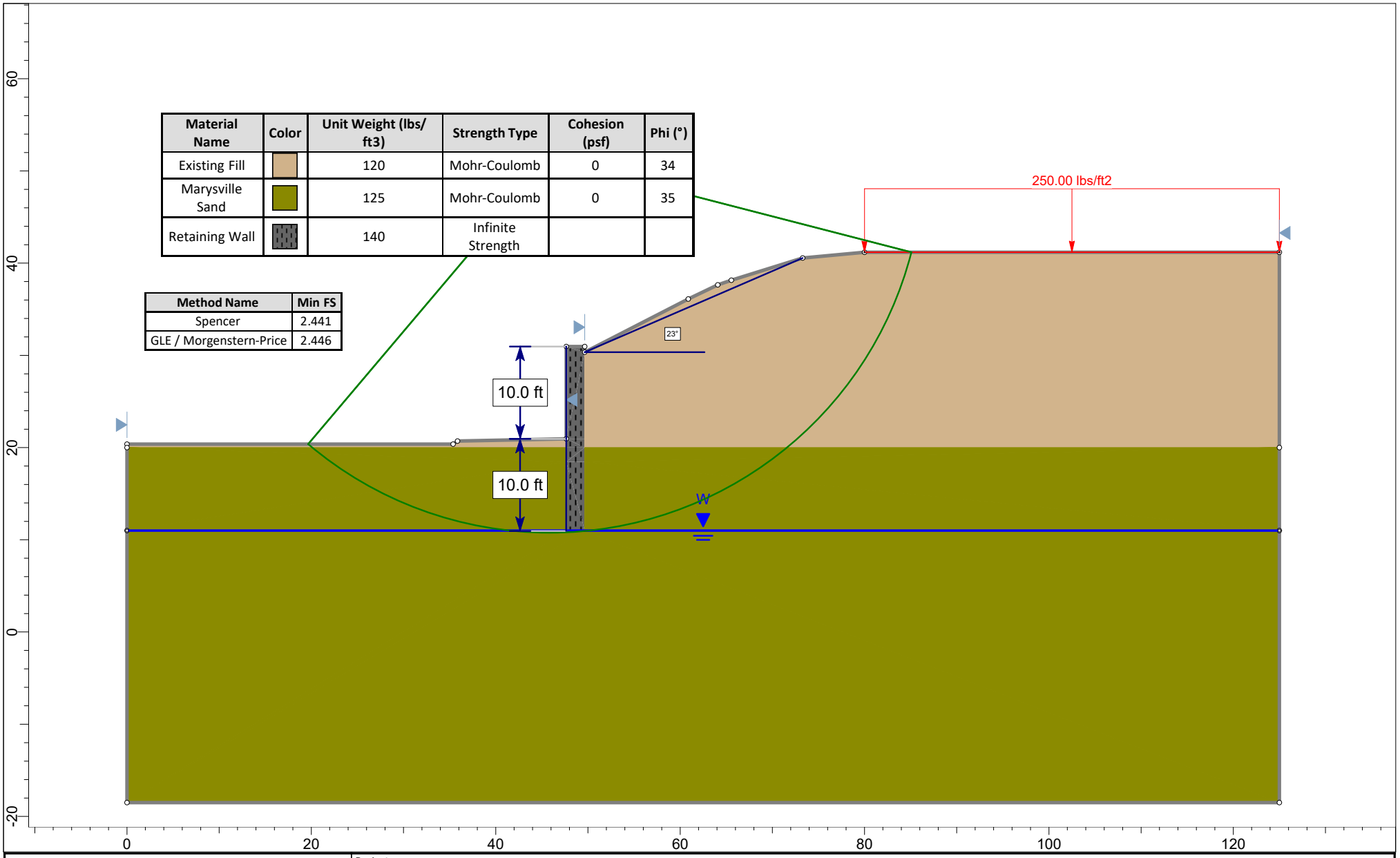


HWA GeoSciences Inc. DBE/MWBE	Project: I-5 / 4th Street & 88th Street NE Interchange Improvements		
	Analysis Description: Wall 1 Global Stability - Post Liquefaction		
	Drawn By: YNAN/SRB	Scale: 1:188	Company: HWA Geosciences Inc.
	Date: 3/29/2024		Figure: Figure D-9

SLIDEINTERPRET 9.032

Material Name	Color	Unit Weight (lbs/ ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Marysville Sand		125	Mohr-Coulomb	0	35
Retaining Wall		140	Infinite Strength		

Method Name	Min FS
Spencer	2.441
GLE / Morgenstern-Price	2.446



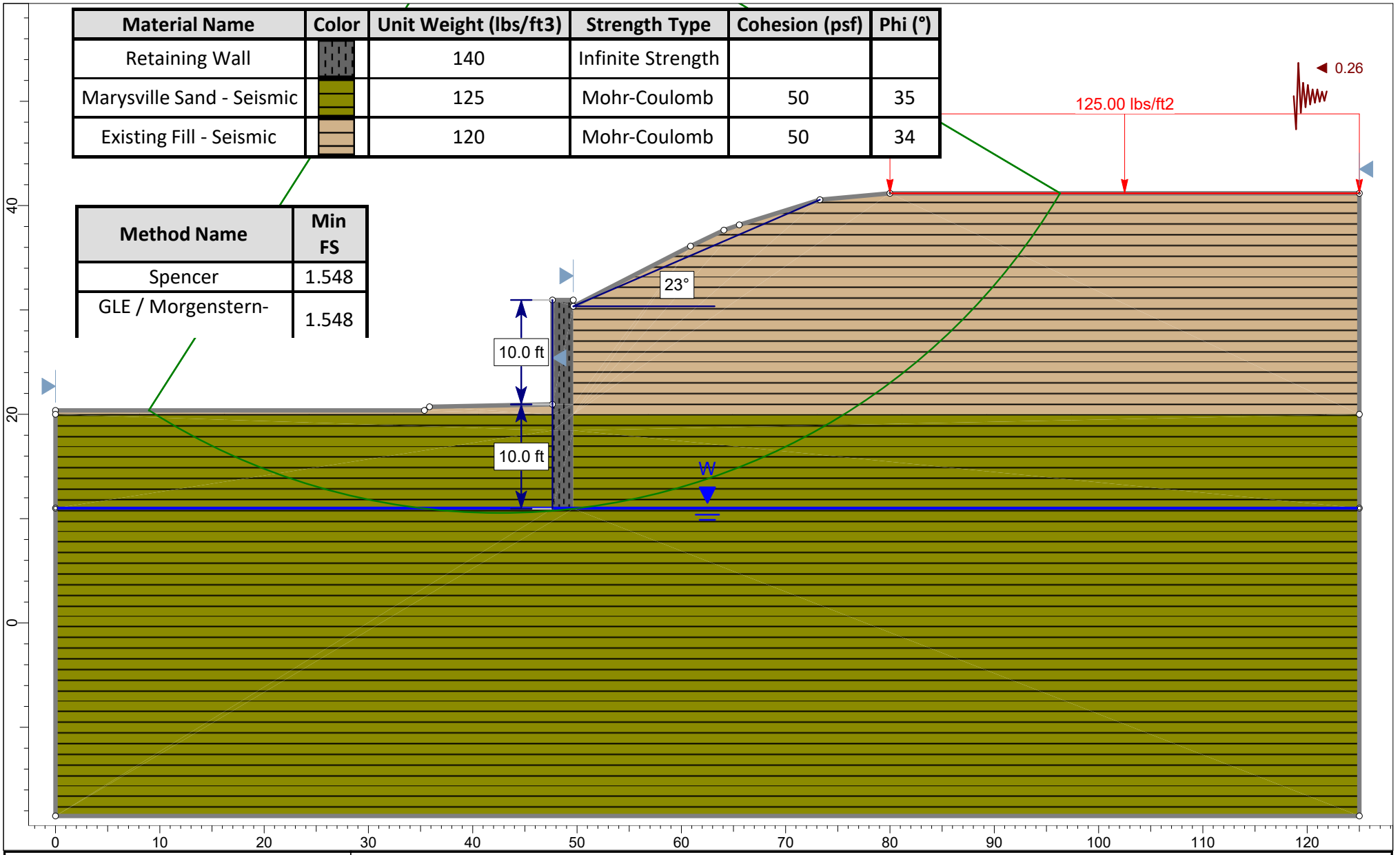
HWA GeoSciences Inc. DBE/MWBE

SLIDEINTERPRET 9.032

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 2 Global Stability - Static		
Drawn By	YNAN/SRB	Scale 1:173	Company HWA Geosciences Inc.
Date	3/29/2024		Figure Figure D-10

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Retaining Wall		140	Infinite Strength		
Marysville Sand - Seismic		125	Mohr-Coulomb	50	35
Existing Fill - Seismic		120	Mohr-Coulomb	50	34

Method Name	Min FS
Spencer	1.548
GLE / Morgenstern-	1.548



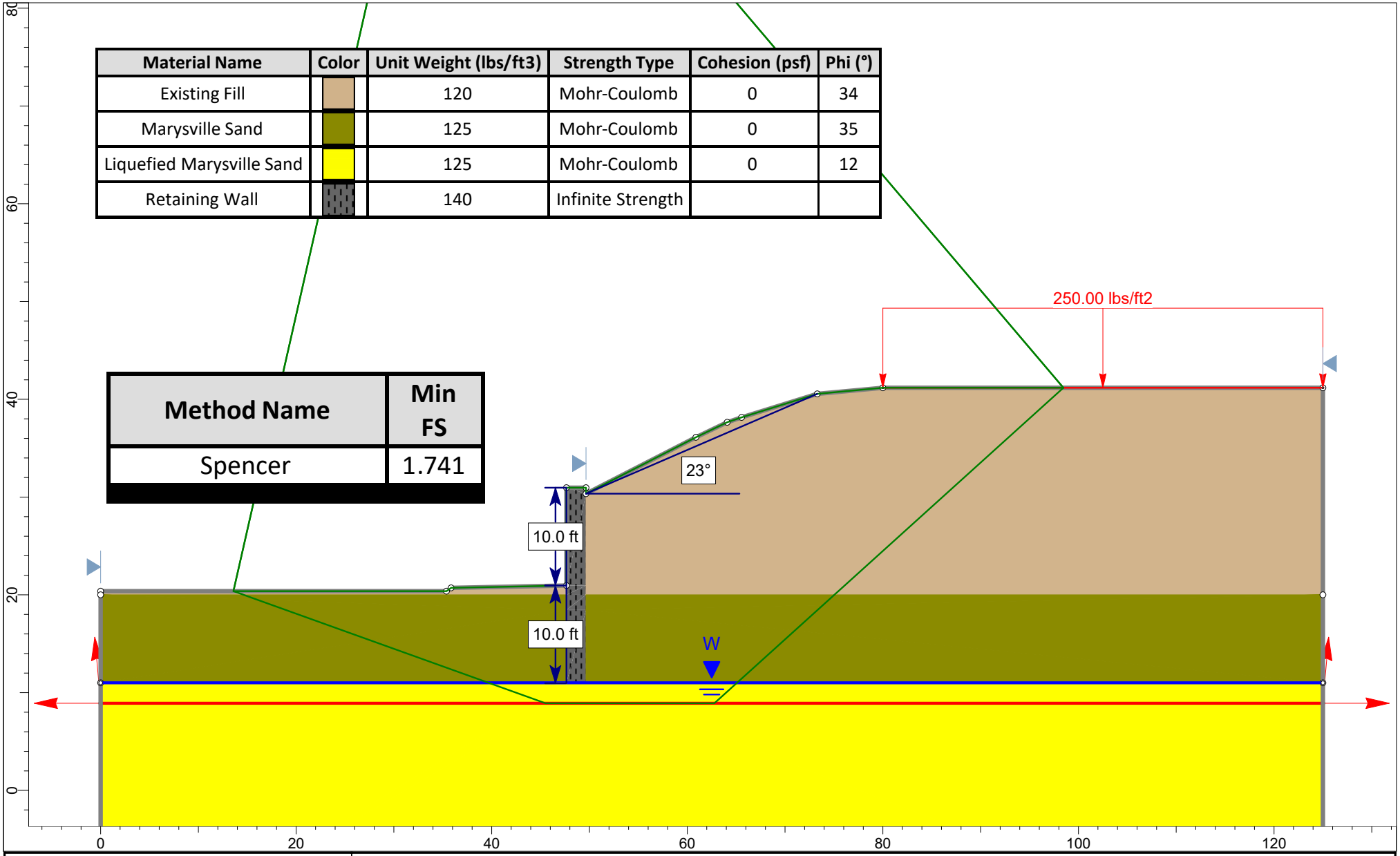
HWA GeoSciences Inc. DBE/MWBE

SLIDEINTERPRET 9.032

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 2 Global Stability - Seismic		
Drawn By	YNAN/SRB	Scale 1:152	Company HWA Geosciences Inc.
Date	3/29/2024		Figure Figure D-11

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Marysville Sand		125	Mohr-Coulomb	0	35
Liquefied Marysville Sand		125	Mohr-Coulomb	0	12
Retaining Wall		140	Infinite Strength		

Method Name	Min FS
Spencer	1.741



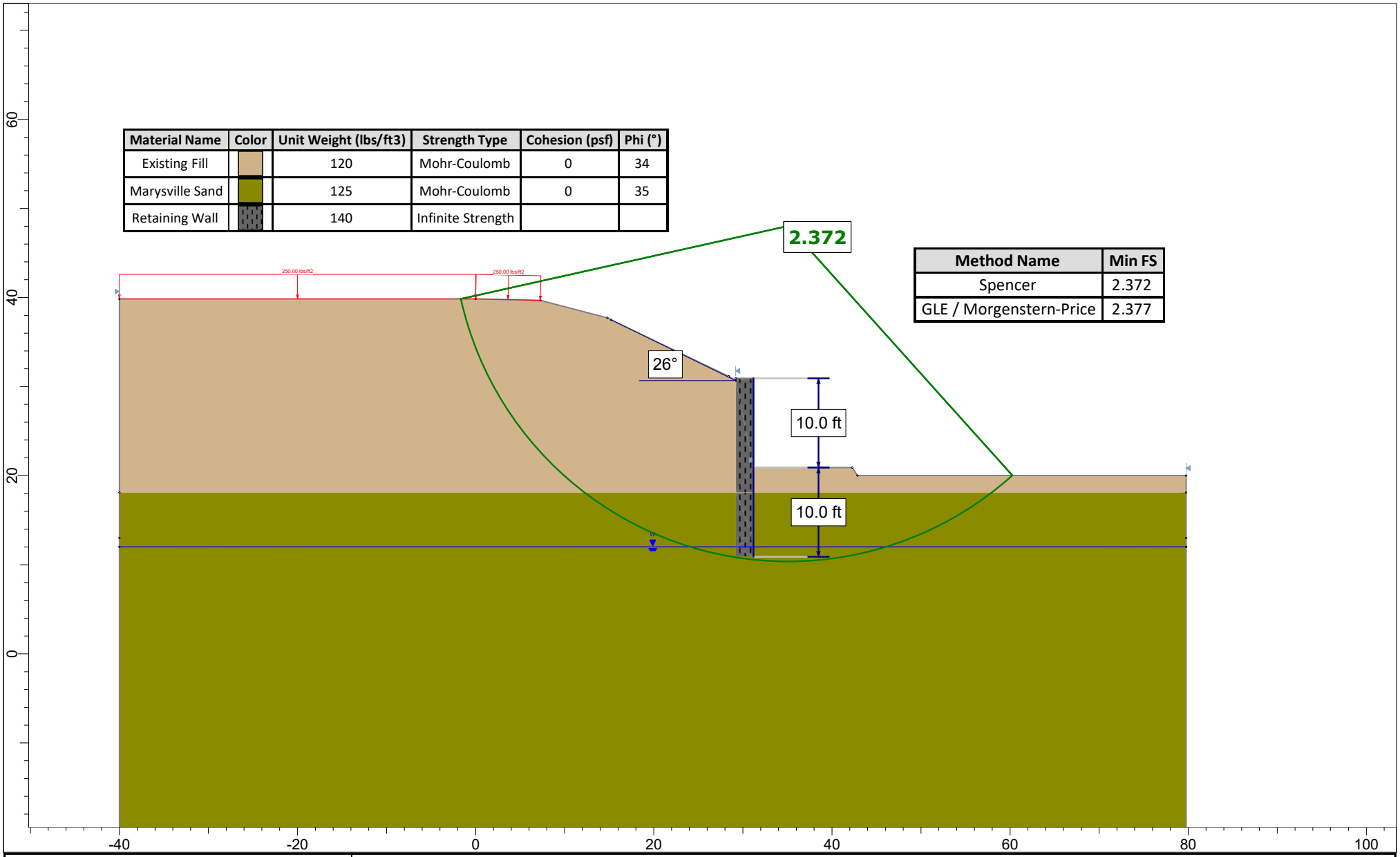
HWA GeoSciences Inc. DBE/MWBE

SLIDEINTERPRET 9.032

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 2 Global Stability - Post Liquefaction		
Drawn By	YNAN/SRB	Scale 1:163	Company HWA Geosciences Inc.
Date	3/29/2024		Figure Figure D-12

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Marysville Sand		125	Mohr-Coulomb	0	35
Retaining Wall		140	Infinite Strength		

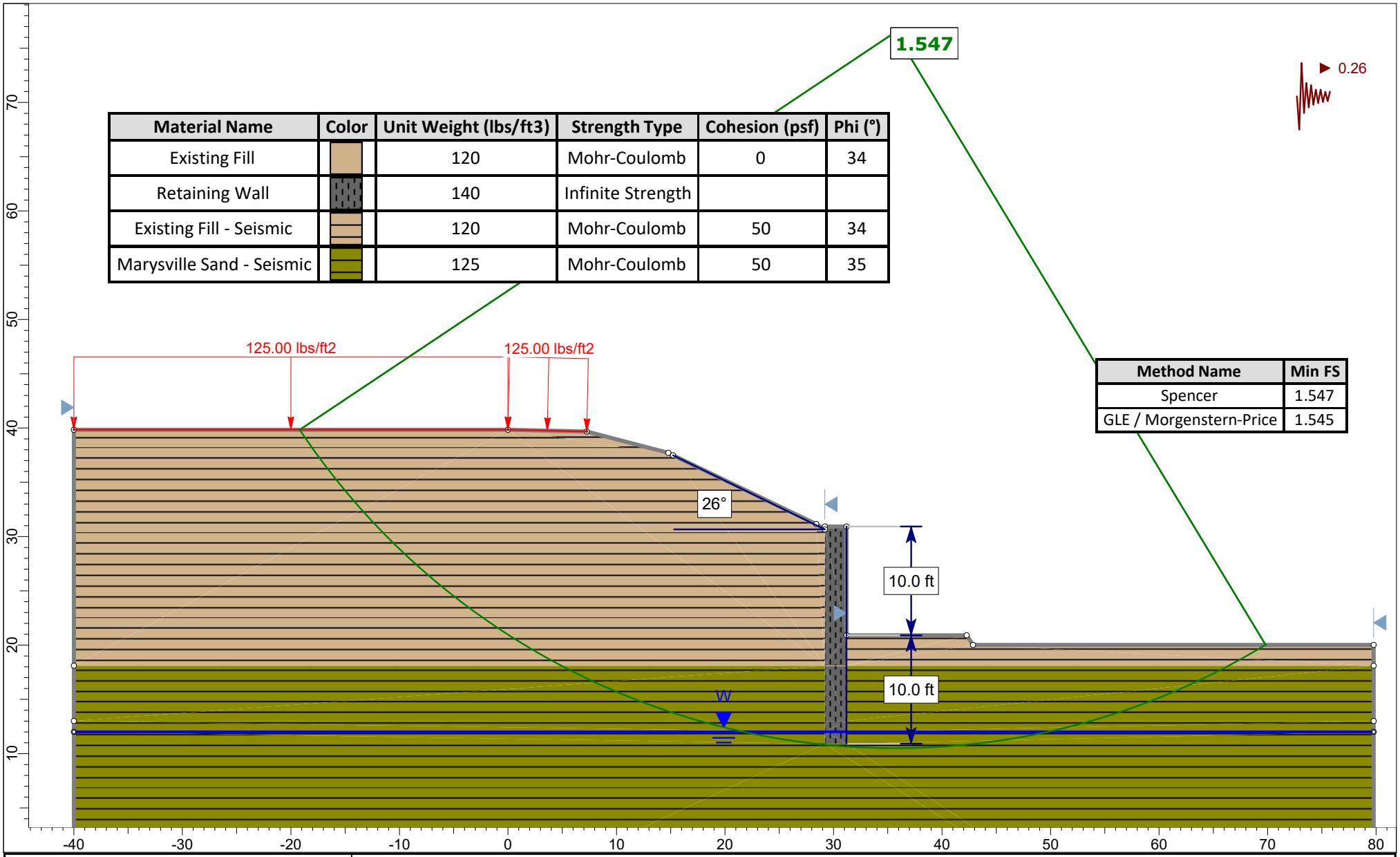
Method Name	Min FS
Spencer	2.372
GLE / Morgenstern-Price	2.377



GEOSCIENCES INC.
DBE/MWBE

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements				
Analysis Description	Wall 3 Global Stability - Static				
Drawn By	YNAN/SRB	Scale	1:179	Company	HWA GeoSciences Inc.
Date	3/29/2024			Figure	Figure D-13

SLIDEINTERPRET 9.032



Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Retaining Wall		140	Infinite Strength		
Existing Fill - Seismic		120	Mohr-Coulomb	50	34
Marysville Sand - Seismic		125	Mohr-Coulomb	50	35

Method Name	Min FS
Spencer	1.547
GLE / Morgenstern-Price	1.545

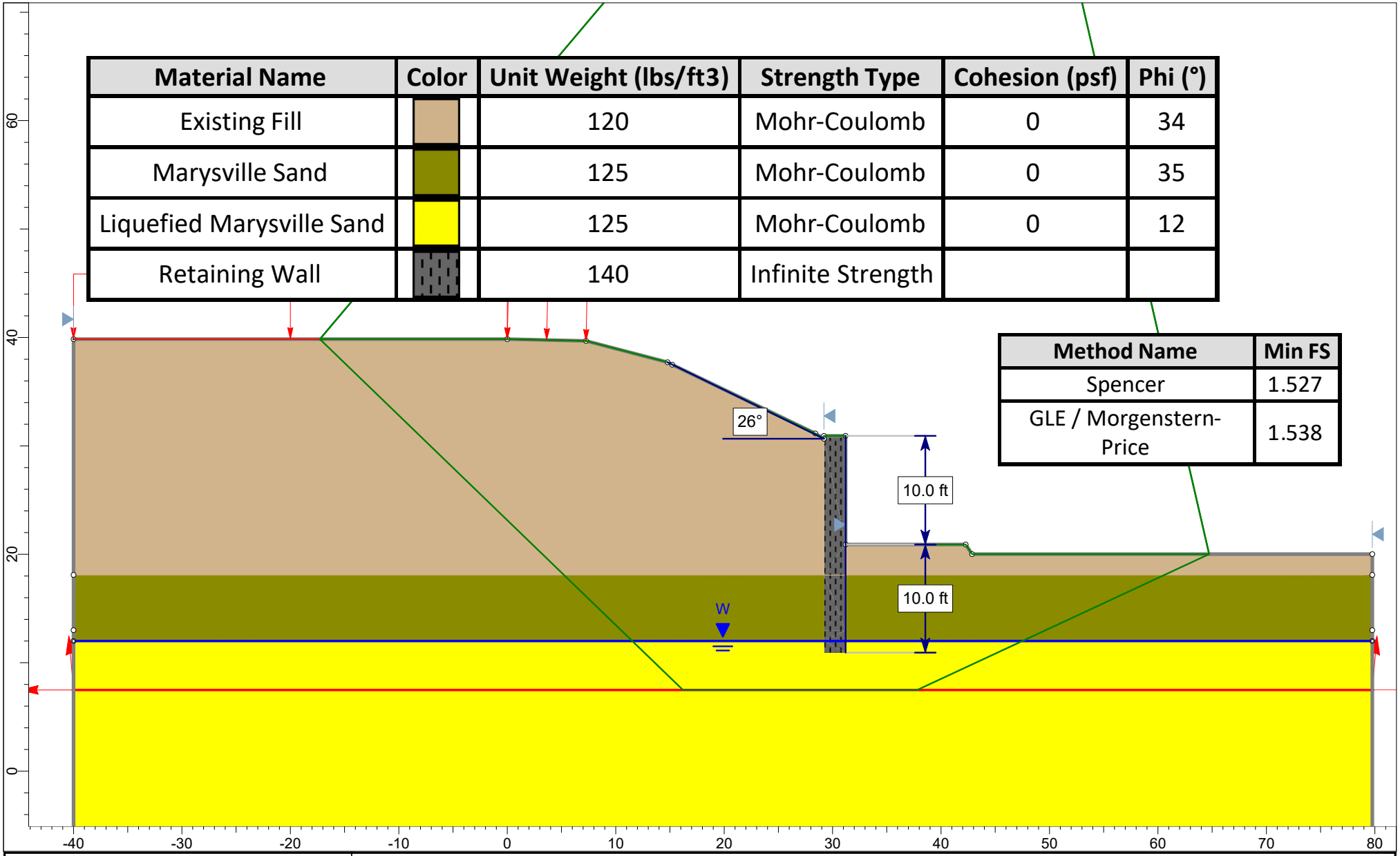
HWA GeoSciences Inc. DBE/MWBE

SLIDEINTERPRET 9.032

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 3 Global Stability - Seismic		
Drawn By	YNAN/SRB	Scale 1:147	Company HWA GeoSciences Inc.
Date	3/29/2024		Figure Figure D-14

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Marysville Sand		125	Mohr-Coulomb	0	35
Liquefied Marysville Sand		125	Mohr-Coulomb	0	12
Retaining Wall		140	Infinite Strength		

Method Name	Min FS
Spencer	1.527
GLE / Morgenstern-Price	1.538



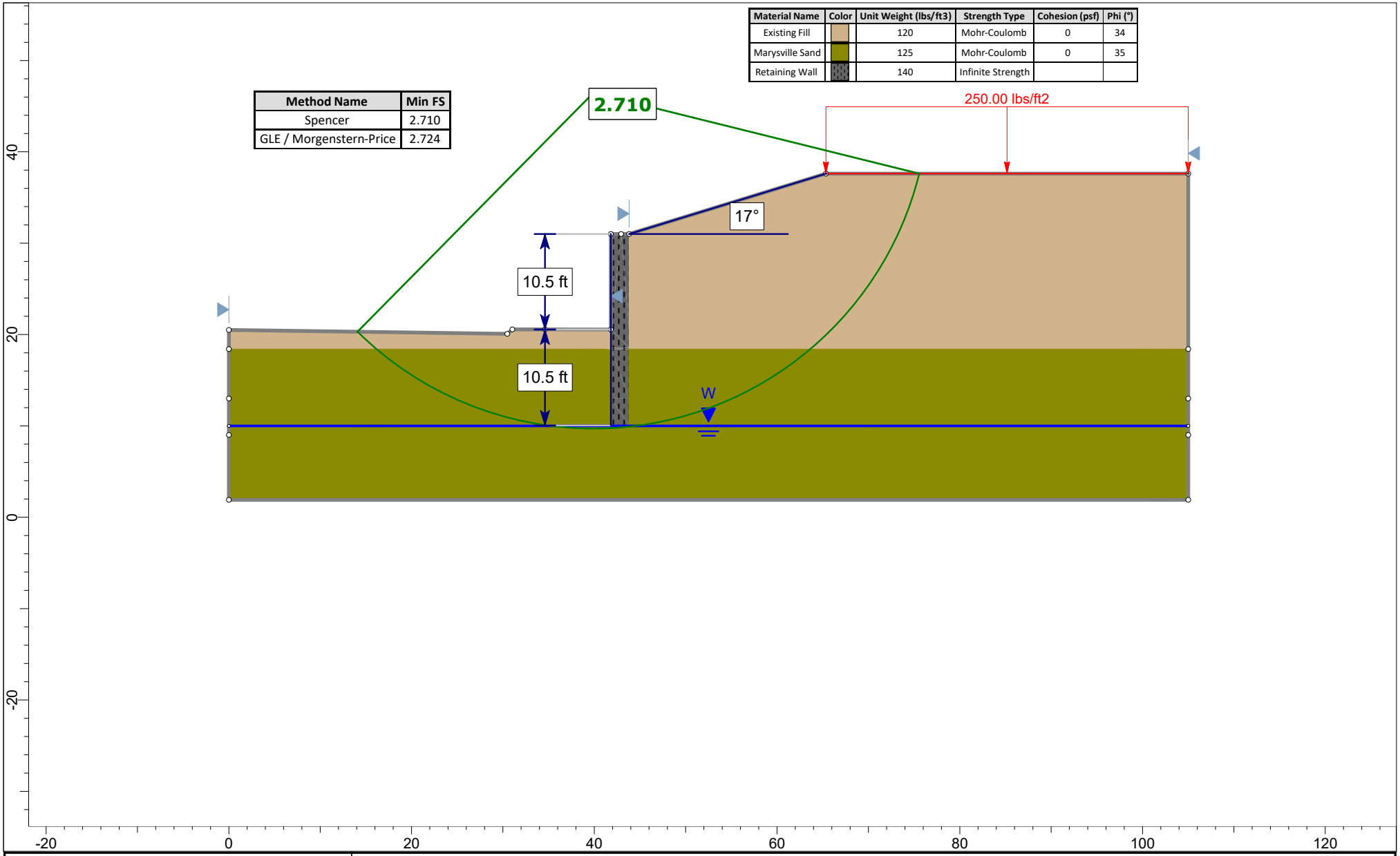
HWA GeoSciences Inc. DBE/MWBE

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 3 Global Stability - Post Liquefaction		
Drawn By	YNAN/SRB	Scale 1:147	Company HWA GeoSciences Inc.
Date	3/29/2024		Figure Figure D-15

SLIDEINTERPRET 9.032

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Marysville Sand		125	Mohr-Coulomb	0	35
Retaining Wall		140	Infinite Strength		

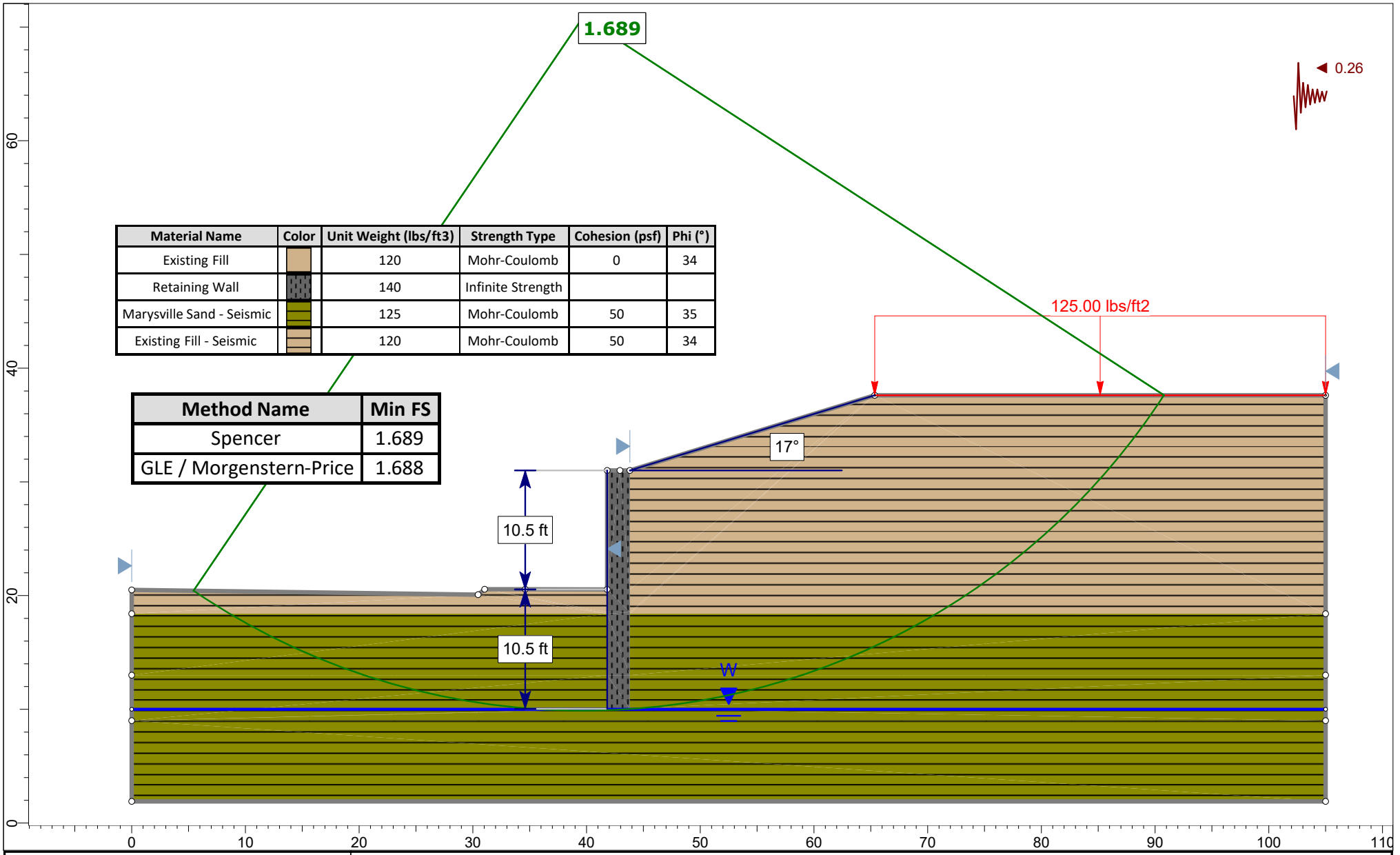
Method Name	Min FS
Spencer	2.710
GLE / Morgenstern-Price	2.724



HWA GeoSciences Inc. DBE/MWBE

SLIDEINTERPRET 9.032

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 4 Global Stability - Static		
Drawn By	YNAN/SRB	Scale 1:174	Company HWA Geosciences Inc.
Date	3/29/2024		Figure Figure D-16



Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Retaining Wall		140	Infinite Strength		
Marysville Sand - Seismic		125	Mohr-Coulomb	50	35
Existing Fill - Seismic		120	Mohr-Coulomb	50	34

Method Name	Min FS
Spencer	1.689
GLE / Morgenstern-Price	1.688

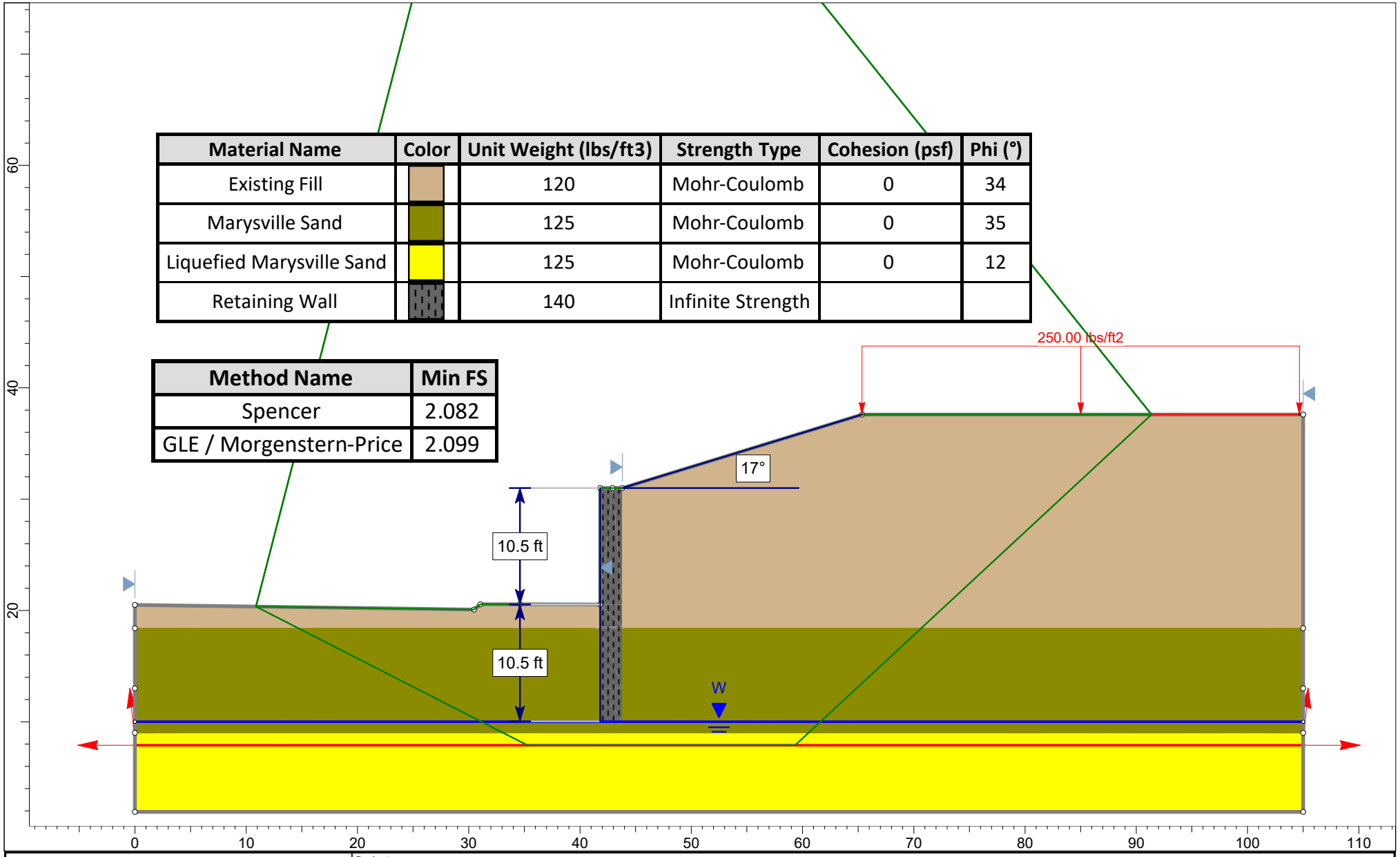
HWA GeoSciences Inc. DBE/MWBE

SLIDEINTERPRET 9.032

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 4 Global Stability - Seismic		
Drawn By	YNAN/SRB	Scale 1:140	Company HWA Geosciences Inc.
Date	3/29/2024		Figure Figure D-17

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)
Existing Fill		120	Mohr-Coulomb	0	34
Marysville Sand		125	Mohr-Coulomb	0	35
Liquefied Marysville Sand		125	Mohr-Coulomb	0	12
Retaining Wall		140	Infinite Strength		

Method Name	Min FS
Spencer	2.082
GLE / Morgenstern-Price	2.099



HWA GeoSciences Inc. DBE/MWBE

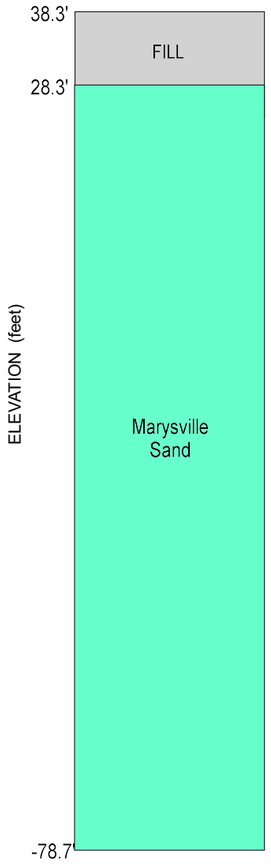
SLIDEINTERPRET 9.032

Project	I-5 / 4th Street & 88th Street NE Interchange Improvements		
Analysis Description	Wall 4 Global Stability - Post Liquefaction		
Drawn By	YNAN/SRB	Scale 1:143	Company HWA Geosciences Inc.
Date	3/29/2024		Figure Figure D-18

APPENDIX E

DRILLED SHAFT AXIAL CAPACITY CHARTS

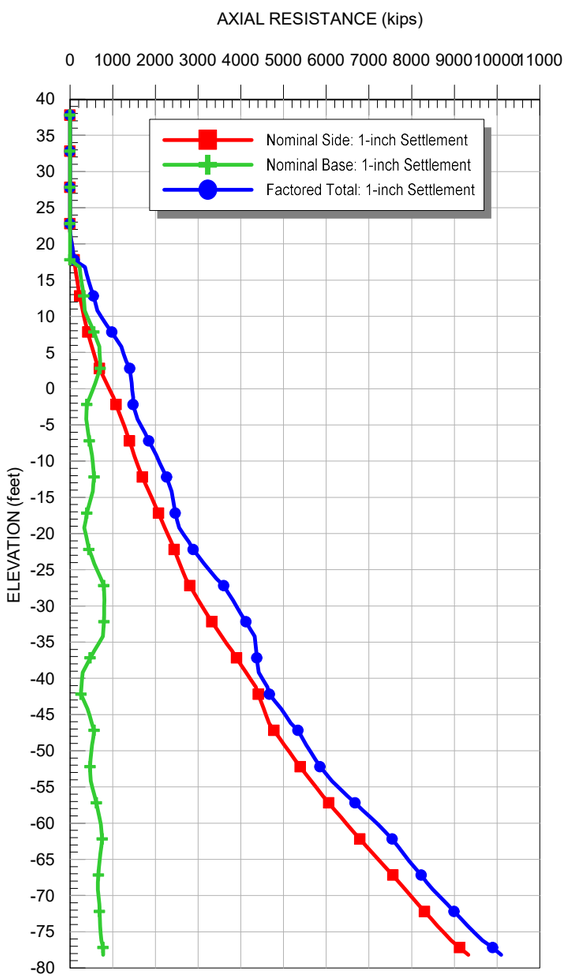
ASSUMED SUBSURFACE PROFILE



PROFILE NOTES:

1. The soil profile shown is based on the soil profile encountered in boring HWA-2-21.

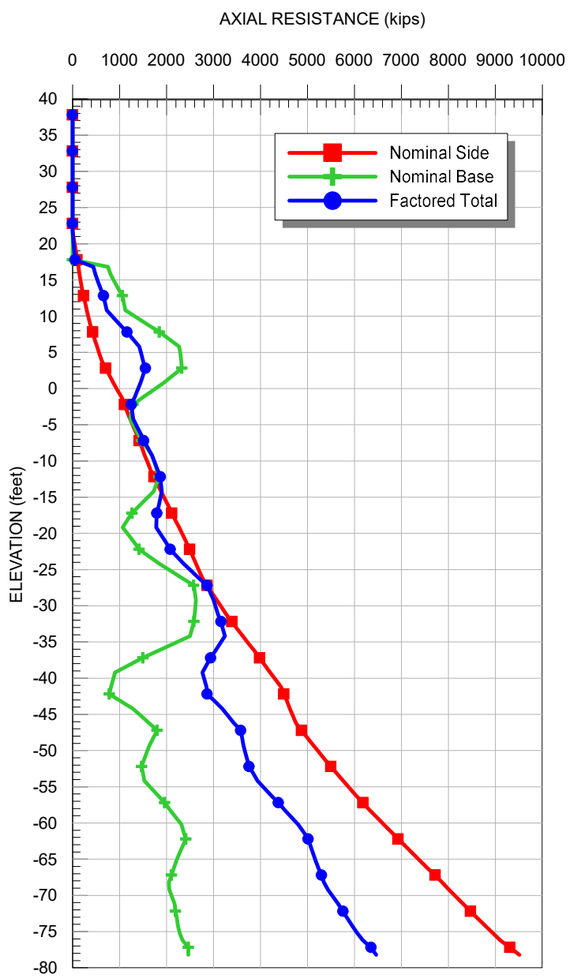
SERVICE LIMIT



SERVICE LIMIT NOTES:

1. Recommended resistance factors per AASHTO LRFD Bridge Design Specification is 1.0 for side resistance.
2. Settlements is based on a single shaft. No group action is considered.
3. Recommended load factor of 1.0 applied to weight of shaft per AASHTO LRFD Bridge Design Specifications.

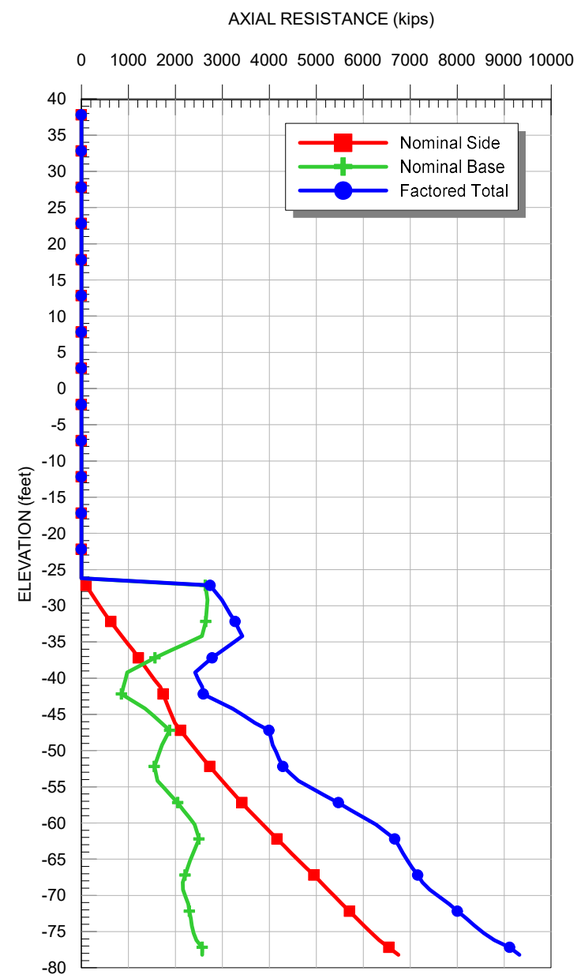
STRENGTH LIMIT



STRENGTH LIMIT NOTES:

1. Recommended resistance factors included in Factored Loads are 0.55 for cohesionless and 0.45 for cohesive for side resistance and 0.5 for cohesionless and 0.4 for cohesive for base resistance, as provided in AASHTO LRFD Bridge Design Specification.
2. Shaft uplift resistance can be estimated by using the nominal side resistance shown above and a recommended resistance factor of 0.35 (per AASHTO LRFD Bridge Design Specification).
3. Recommended load factor of 1.25 was applied to weight of shaft per AASHTO LRFD Bridge Design Specifications.

EXTREME EVENT LIMIT



EXTREME EVENT LIMIT NOTES:

1. Recommended resistance factors per AASHTO LRFD Bridge Design Specification for both side and base resistance are 1.0 for compression and 0.8 for uplift.
2. Recommended load factor of 1.0 applied to weight of shaft per AASHTO LRFD Bridge Design Specifications.
3. Unfactored seismic downdrag force for each shaft is estimated to be **3023 kips**. A load factor of 1.0 should be applied to all downdrag loads to determine factored downdrag loads.

GENERAL NOTES:

1. The analyses were performed based on guidelines included in the AASHTO LRFD Bridge Design Specification and local experience. The analyses are based on a single shaft and do not consider group action of closely spaced shafts.
2. Factored total shaft resistance shown on plots include the summation of the shaft's nominal side and base resistances multiplied by the appropriate resistance factors as noted above.
3. The nominal side and base resistance values presented do not include the resistance factors.
4. The nominal base and total factored axial capacities provided have been are reduced to account for the weight of drilled shafts with appropriate load factors applied for each limit state.
5. The weight of the drilled shafts is calculated from the proposed shaft top elevation presented on the assumed subsurface profile.
6. Estimated shaft resistance assumes that all temporary casing will be removed after the shaft installation. If, however, the casing is left in place, grouting should be used to fill all potential voids around the casing and the estimated resistance given above should be re-evaluated.

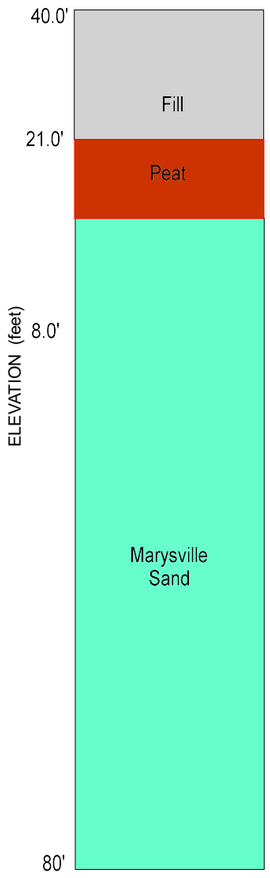
HWA GeoSciences Inc. DBE/MWBE

I-5/4th Street and 88th Street NE
Corridor Improvements
Tulalip, Washington

COHO CREEK BRIDGE
WESTERN ABUTMENT
AXIAL SHAFT CAPACITIES
8-FOOT DIAMETER SHAFTS

DRAWN BY	SM
CHECKED BY	SB
DATE	7.31.2023
FIGURE NO.	E-1
PROJECT NO.	2019-127-21

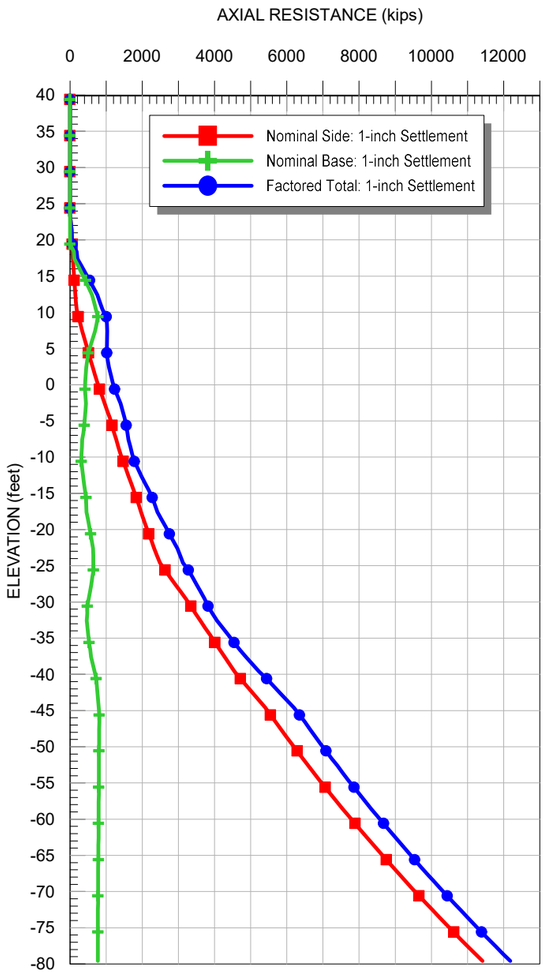
ASSUMED SUBSURFACE PROFILE



PROFILE NOTES:

1. The soil profile shown is based on boring HWA-20-22.

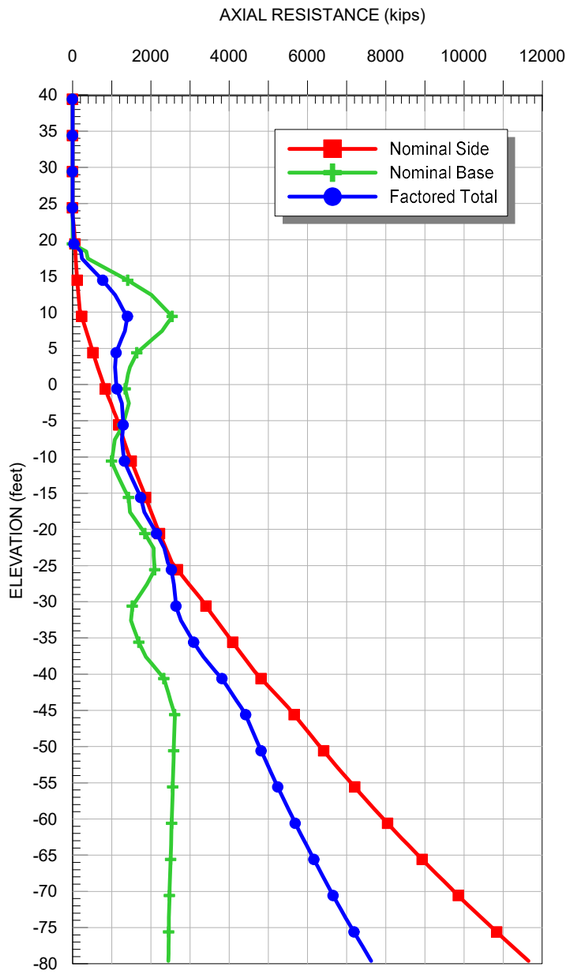
SERVICE LIMIT



SERVICE LIMIT NOTES:

1. Recommended resistance factors per AASHTO LRFD Bridge Design Specification is 1.0 for side resistance.
2. Settlements is based on a single shaft. No group action is considered.
3. Recommended load factor of 1.0 applied to weight of shaft per AASHTO LRFD Bridge Design Specifications.

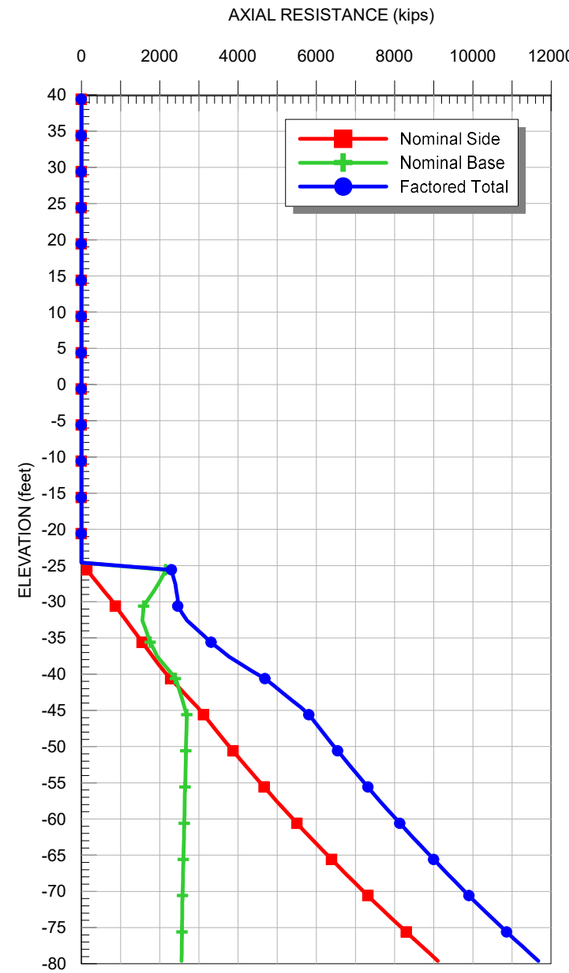
STRENGTH LIMIT



STRENGTH LIMIT NOTES:

1. Recommended resistance factors included in Factored Loads are 0.55 for cohesionless and 0.45 for cohesive for side resistance and 0.5 for cohesionless and 0.4 for cohesive for base resistance, as provided in AASHTO LRFD Bridge Design Specification.
2. Shaft uplift resistance can be estimated by using the nominal side resistance shown above and a recommended resistance factor of 0.35 (per AASHTO LRFD Bridge Design Specification).
3. Unfactored static downdrag force, due to consolidation settlement, for each shaft is estimated to be **448 kips**. A load factor of 1.25 should be applied to all downdrag loads to determine factored downdrag force.
4. Recommended load factor of 1.25 was applied to weight of shaft per AASHTO LRFD Bridge Design Specifications.

EXTREME EVENT LIMIT



EXTREME EVENT LIMIT NOTES:

1. Recommended resistance factors per AASHTO LRFD Bridge Design Specification for both side and base resistance are 1.0 for compression and 0.8 for uplift.
2. Recommended load factor of 1.0 applied to weight of shaft per AASHTO LRFD Bridge Design Specifications.
3. Unfactored seismic downdrag force for each shaft is estimated to be **2490 kips**. A load factor of 1.0 should be applied to all downdrag loads to determine factored downdrag loads.

GENERAL NOTES:

1. The analyses were performed based on guidelines included in the AASHTO LRFD Bridge Design Specification and local experience. The analyses are based on a single shaft and do not consider group action of closely spaced shafts.
2. Factored total shaft resistance shown on plots include the summation of the shaft's nominal side and base resistances multiplied by the appropriate resistance factors as noted above.
3. The nominal side and base resistance values presented do not include the resistance factors.
4. The nominal base and total factored axial capacities provided have been reduced to account for the weight of drilled shafts with appropriate load factors applied for each limit state.
5. The weight of the drilled shafts is calculated from the proposed shaft top elevation presented on the assumed subsurface profile.
6. Estimated shaft resistance assumes that all temporary casing will be removed after the shaft installation. If, however, the casing is left in place, grouting should be used to fill all potential voids around the casing and the estimated resistance given above should be re-evaluated.

HWA GeoSciences Inc. DBE/MWBE

I-5/4th Street and 88th Street NE Corridor Improvements Marysville, Washington

COHO CREEK BRIDGE
EASTERN ABUTMENT
AXIAL SHAFT CAPACITIES
8-FOOT DIAMETER SHAFTS

DRAWN BY	YNAN
CHECKED BY	SB
DATE	7.31.2023
FIGURE NO.	E-2
PROJECT NO.	2019-127-21

APPENDIX F

LPILE PARAMETERS

Coho Creek Bridge

LPILE Parameters

Coho Creek Western Abutment: Static and Seismic, Non-Liquefied

Soil Layer	Soil Type (p-y model)	Top of Layer (ft)*	Bottom of Layer (ft)	Effective Unit Wt, γ' (pcf)[1]	Friction Angle (deg)	Undrained Cohesion, C (psf)	p-y Modulus Static, k (pci)	Strain Factor, ε_{50} (dim)
~~Fill~~	~~Sand (Reese)~~	~~0~~		~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
			~~10~~	~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
~~Marysville Sand (Above Water Table)~~	~~Sand (Reese)~~	~~10~~		~~125~~	~~35~~	~~--~~	~~200~~	~~--~~
			~~12~~	~~125~~	~~35~~	~~--~~	~~200~~	~~--~~
~~Marysville Sand (Below Water Table)~~	~~Sand (Reese)~~	~~12~~		~~62.6~~	~~35~~	~~--~~	~~100~~	~~--~~
			~~20~~	~~62.6~~	~~35~~	~~--~~	~~100~~	~~--~~
Marysville Sand (Below Water Table)	Sand (Reese)	20		62.6	35	--	100	--
			X	62.6	35	--	100	--

Coho Creek Western Abutment: Post-Liquefaction

Soil Layer	Soil Type (p-y model)	Top of Layer (ft)*	Bottom of Layer (ft)	Effective Unit Wt, γ' (pcf)[1]	Friction Angle (deg)	Undrained Cohesion, C (psf)	p-y Modulus Static, k (pci)	Strain Factor, ε_{50} (dim)
~~Fill~~	~~Sand (Reese)~~	~~0~~		~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
			~~10~~	~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
~~Marysville Sand (Above Water Table)~~	~~Sand (Reese)~~	~~10~~		~~125~~	~~35~~	~~--~~	~~200~~	~~--~~
			~~12~~	~~125~~	~~35~~	~~--~~	~~200~~	~~--~~
~~Marysville Sand (Below Water Table)~~	~~Sand (Reese)~~	~~12~~		~~62.6~~	~~10~~	~~--~~	~~20~~	~~--~~
			~~23.5~~	~~62.6~~	~~10~~	~~--~~	~~20~~	~~--~~
Marysville Sand (Below Water Table)	Sand (Reese)	23.5		62.6	10	--	20	--
			32	62.6	10	--	20	--
Marysville Sand	Sand (Reese)	32		62.6	35	--	100	--
			38	62.6	35	--	100	--
Marysville Sand	Sand (Reese)	38		62.6	12	--	20	--
			60	62.6	12	--	20	--
Marysville Sand	Sand (Reese)	60		62.6	35	--	100	--
			X	62.6	35	--	100	--

Notes:
*LPile Elevation 0 is equivalent to the elevation of the ground surface.
The ground surface elevation at the Western Abutment is about 40 feet.
The top of shaft elevation at the Western Abutment is 22.5 feet.
The yellow shading indicates a liquefied soil layer with post-liquefaction residual strength.
The scour elevation is about 16.5 feet. The gray shading indicates no lateral resistance above that elevation.

[1]: Total Unit Weight (pcf) = Effective Unit Weight + 62.4 (for layers below water table)

Coho Creek Bridge

LPILE Parameters

Coho Creek Eastern Abutment: Static and Seismic, Non-Liquefied

Soil Layer	Soil Type (p-y model)	Top of Layer (ft)*	Bottom of Layer (ft)	Effective Unit Wt, γ' (pcf)[1]	Friction Angle (deg)	Undrained Cohesion, C (psf)	p-y Modulus Static, k (pci)	Strain Factor, ε_{50} (dim)
~~Fill (Above Water Table)~~	~~Sand (Reese)~~	~~0~~		~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
			~~10~~	~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
~~Fill (Below Water Table)~~	~~Sand (Reese)~~	~~10~~		~~57.6~~	~~34~~	~~--~~	~~100~~	~~--~~
			~~19.5~~	~~57.6~~	~~34~~	~~--~~	~~100~~	~~--~~
~~Peat~~	~~Soft Clay (Matlock)~~	~~19.5~~		~~27.6~~	~~--~~	~~150~~	~~30~~	~~0.02~~
			~~24.5~~	~~27.6~~	~~--~~	~~150~~	~~30~~	~~0.02~~
Peat	Soft Clay (Matlock)	24.5		27.6	--	150	30	0.02
			32.5	27.6	--	150	30	0.02
Marysville Sand	Sand (Reese)	32.5		62.6	35	--	100	--
			X	62.6	35	--	100	--

Coho Creek Eastern Abutment: Post-Liquefaction

Soil Layer	Soil Type (p-y model)	Top of Layer (ft)*	Bottom of Layer (ft)	Effective Unit Wt, γ' (pcf)[1]	Friction Angle (deg)	Undrained Cohesion, C (psf)	p-y Modulus Static, k (pci)	Strain Factor, ε_{50} (dim)
~~Fill (Above Water Table)~~	~~Sand (Reese)~~	~~0~~		~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
			~~10~~	~~120~~	~~34~~	~~--~~	~~200~~	~~--~~
~~Fill (Below Water Table)~~	~~Sand (Reese)~~	~~10~~		~~57.6~~	~~34~~	~~--~~	~~100~~	~~--~~
			~~19.5~~	~~57.6~~	~~34~~	~~--~~	~~100~~	~~--~~
~~Peat~~	~~Soft Clay (Matlock)~~	~~19.5~~		~~27.6~~	~~--~~	~~150~~	~~30~~	~~0.02~~
			~~24.5~~	~~27.6~~	~~--~~	~~150~~	~~30~~	~~0.02~~
Peat	Soft Clay (Matlock)	24.5		27.6	--	150	30	0.02
			32.5	27.6	--	150	30	0.02
Marysville Sand	Sand (Reese)	32.5		62.6	35	--	100	--
			40	62.6	35	--	100	--
Marysville Sand	Sand (Reese)	40		62.6	12	--	20	--
			60	62.6	12	--	20	--
Marysville Sand	Sand (Reese)	60		62.6	35	--	100	--
			X	62.6	35	--	100	--

Notes:
*LPile Elevation 0 is equivalent to the elevation of the ground surface.
The ground surface elevation at the Eastern Abutment is about 41 feet.
The top of shaft elevation at the Eastern Abutment is 24 feet.
The yellow shading indicates a liquefied soil layer with post-liquefaction residual strength.
The scour elevation is about 16.5 feet. The gray shading indicates no lateral resistance above that elevation.

[1]: Total Unit Weight (pcf) = Effective Unit Weight + 62.4 (for layers below water table)

Appendix B

Wages

Federal Wage Rates

"General Decision Number: WA20260001 06/16/2026

State: Washington

Construction Types: Highway

Counties: Washington Counties of
Adams, Asotin, Benton, Chelan, Clallam,
Clark, Columbia, Cowlitz, Douglas,
Ferry, Franklin, Garfield, Grant, Grays
Harbor, Island, Jefferson, King, Kitsap,
Kittitas, Klickitat, Lewis, Lincoln,
Mason, Okanogan, Pacific, Pend Oreille,
Pierce, San Juan, Skagit, Skamania,
Snohomish, Spokane, Stevens, Thurston,
Wahkiakum, Walla Walla, Whatcom, Whitman
and Yakima

Excludes D.O.E. Hanford Site in Benton and Franklin Counties

Modification Number	Publication Date
1	01/23/2026
2	05/18/2026
3	05/20/2026
4	**06/16/2026**

CARP0059-021 06/01/2025

	Rates	Fringes
CARPENTER: PILEDRIVER: INCLUDES DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING, OR CREOSOTE TREATED MATERIAL, ON ALL PILING (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT...	$ 49.76	17.28
CARPENTER: DIVER TENDER, MANIFOLD OPERATOR, ROV OPERATOR (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....	$ 54.24	17.28
CARPENTER: MANIFOLD OPERATOR-MIXED GAS (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN,		

OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT...$ 58.24 17.28

CARPENTER: CARPENTER (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 44.21 17.28

CARPENTER: ASSISTANT DIVER TENDER, ROV TENDER/TECHNICIAN (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 50.76 17.28

CARPENTER :BRIDGE, DOCK, AND WHARF CARPENTER (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 48.21 17.28

CARPENTER: DIVER STANDBY (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 55.24 17.28

CARPENTER: DIVER WET (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 110.48 17.28

CARP0096-002 06/01/2025

	Rates	Fringes
MILLWRIGHT (CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS,MASON, PACIFIC (NORTH OF A STRAIGHT LINE MADE BY EXTENDING THENORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFICOCEAN), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES)	$ 55.39	22.38

CARP0096-007 06/01/2025

	Rates	Fringes
MILLWRIGHT (SOUTHWEST WASHINGTON: CLARK, COWLITZ, LEWIS (PILEDRIVER ONLY), PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN), SKAMANIA, AND WAHKIAKUM COUNTIES.)	$ 59.35	22.38

CARP0196-004 06/01/2025

	Rates	Fringes
PILEDRIVER (CLARK, COWLITZ, *PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES *PORTION OF PACIFIC COUNTY SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN, AND THENCE NORTH THROUGH THE NATURAL WATERWAY TO THE PACIFIC OCEAN (THIS INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY))	$ 56.06	16.81

CARP0196-006 06/01/2025

	Rates	Fringes
PILEDRIVER (CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, *PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES * PORTION OF PACIFIC COUNTY NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN COUNTIES OR PARTS OF COUNTIES EAST OF THE 120TH MERIDIAN)	$ 65.53	19.13

CARP0206-009 06/01/2025

	Rates	Fringes
CARPENTER: BRIDGE CARPENTER (KING AND KITSAP COUNTIES)	$ 65.58	19.13
CARPENTER: CARPENTER (KING AND KITSAP COUNTIES)	$ 63.98	19.13
CARPENTER: DIVER (KING AND KITSAP COUNTIES)	$ 125.44	19.13
CARPENTER: DIVER TENDER (KING AND KITSAP COUNTIES)	$ 71.77	19.13

CARP0360-006 09/15/2025

	Rates	Fringes
CARPENTER: BRIDGE CARPENTER (PACIFIC COUNTY. PORTION OF PACIFIC COUNTY NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN COUNTIES OR PARTS OF COUNTIES EAST OF THE 120TH MERIDIAN) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 65.58	19.13
CARPENTER: CARPENTER/DRYWALL HANGER (PACIFIC COUNTY. PORTION OF PACIFIC COUNTY NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN COUNTIES OR PARTS OF COUNTIES EAST OF THE 120TH MERIDIAN) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 63.98	19.13
CARPENTER: DIVER (PACIFIC COUNTY. PORTION OF PACIFIC COUNTY NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN COUNTIES OR PARTS OF COUNTIES EAST OF THE 120TH MERIDIAN) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 125.44	19.13
CARPENTER: DIVER TENDER (PACIFIC COUNTY. PORTION OF PACIFIC COUNTY NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN COUNTIES OR PARTS OF COUNTIES EAST OF THE 120TH MERIDIAN) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 71.77	19.13

CARP0360-007 06/01/2025

	Rates	Fringes
CARPENTERS: CARPENTERS (PACIFIC COUNTY. PORTION OF PACIFIC COUNTY SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN, AND THENCE NORTH THROUGH THE NATURAL WATERWAY TO THE PACIFIC OCEAN (THIS INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY)) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 54.69	16.81

CARPENTERS: DIVERS (PACIFIC COUNTY PORTION OF PACIFIC COUNTY SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN, AND THENCE NORTH THROUGH THE NATURAL WATERWAY TO THE PACIFIC OCEAN (THIS INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY)) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 108.33 16.81

CARPENTERS: DIVERS TENDERS (PACIFIC COUNTY PORTION OF PACIFIC COUNTY SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN, AND THENCE NORTH THROUGH THE NATURAL WATERWAY TO THE PACIFIC OCEAN (THIS INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY)) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT. .....$ 64.32 16.81

CARPENTERS: DRYWALL (PACIFIC COUNTY PORTION OF PACIFIC COUNTY SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO WILLAPA BAY TO THE PACIFIC OCEAN, AND THENCE NORTH THROUGH THE NATURAL WATERWAY TO THE PACIFIC OCEAN (THIS INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY)) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 54.59 16.81

CARP0360-013 06/01/2025

	Rates	Fringes
CARPENTER: BRIDGE CARPENTER (GRAYS HARBOR, LEWIS, MASON, PIERCE, AND THURSTON COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT...	$ 65.58	19.13
CARPENTER: CARPENTER (GRAYS HARBOR, LEWIS, MASON, PIERCE, AND THURSTON COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....	$ 63.98	19.13
CARPENTER: DIVER (GRAYS HARBOR, LEWIS, MASON, PIERCE, AND THURSTON COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....	$ 125.44	19.13

CARPENTER: DIVER TENDER (GRAYS HARBOR, LEWIS, MASON, PIERCE, AND THURSTON COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT...$ 71.77 19.13

CARP0425-006 09/15/2025

	Rates	Fringes
CARPENTER: BRIDGE CARPENTER (CLALLAM, ISLAND, JEFFERSON, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 65.58	19.13
CARPENTER: CARPENTER (CLALLAM, ISLAND, JEFFERSON, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 63.98	19.13
CARPENTER: DIVER (CLALLAM, ISLAND, JEFFERSON, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 125.44	19.13
CARPENTER: DIVER TENDER (CLALLAM, ISLAND, JEFFERSON, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.	$ 71.77	19.13

CARP0503-021 06/01/2025

	Rates	Fringes
CARPENTERS: CARPENTERS (CLARK, COWLITZ, SKAMANIA, AND WAHKIAKUM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 54.69	16.81
CARPENTERS: DIVERS (CLARK, COWLITZ, SKAMANIA, AND WAHKIAKUM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT	$ 108.33	16.81

CARPENTERS: DIVERS TENDERS (CLARK, COWLITZ, SKAMANIA, AND WAHKIAKUM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW, (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGHEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 64.32 16.81

CARPENTERS: DRYWALL (CLARK, COWLITZ, SKAMANIA, AND WAHKIAKUM COUNTIES) EMPLOYEES MAY BE REQUIRED TO PERFORM ANY COMBINATION OF WORK WITHIN THE DIVING TEAM/CREW (EXCEPT FOR DIVE SUPERVISOR) PROVIDED THEY ARE PAID AT THE HIGEST RATE OF PAY THAT THEY RECEIVED DURING THEIR SHIFT.....$ 54.59 16.81

CARP1607-010 06/01/2025

	Rates	Fringes
MILLWRIGHT (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KLICKITAT, KITTITAS, LINCOLNC, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES).....	$ 61.62	20.43

ELEC0046-001 08/04/2025

	Rates	Fringes
CABLE SPLICER (CALLAM, JEFFERSON, KING AND KITSAP COUNTIES).....	$ 83.56	33.71
ELECTRICIAN (CALLAM, JEFFERSON, KING AND KITSAP COUNTIES).....	$ 75.96	33.48

ELEC0048-003 01/01/2025

	Rates	Fringes
CABLE SPLICER (CLARK, KLICKITAT AND SKAMANIA COUNTIES). HOURLY ZONE PAY: HOURLY ZONE PAY SHALL BE PAID ON JOBS LOCATED OUTSIDE OF THE FREE ZONE COMPUTED FROM THE CITY CENTER OF THE FOLLOWING LISTED CITIES: PORTLAND, THE DALLES, HOOD RIVER, TILLAMOOK, SEASIDE AND ASTORIA. ZONE PAY: ZONE 1: 31-50 MILES $1.50/HOUR ZONE 2: 51-70 MILES $3.50/HOUR ZONE 3: 71-90 MILES $5.50/HOUR ZONE 4: BEYOND 90 MILES $9.00/HOUR *THESE ARE NOT MILES DRIVEN. ZONES ARE BASED ON DELORRNE STREET ATLAS USA 2006 PLUS.....	$ 44.22	21.50
ELECTRICIAN (CLARK, KLICKITAT AND SKAMANIA COUNTIES). HOURLY ZONE PAY: HOURLY ZONE PAY SHALL BE PAID ON JOBS LOCATED OUTSIDE OF THE FREE ZONE COMPUTED FROM THE CITY CENTER OF THE FOLLOWING LISTED CITIES: PORTLAND, THE DALLES, HOOD RIVER, TILLAMOOK, SEASIDE AND ASTORIA. ZONE PAY: ZONE 1: 31-50 MILES $1.50/HOUR ZONE 2: 51-70 MILES $3.50/HOUR ZONE 3: 71-90 MILES $5.50/HOUR ZONE 4: BEYOND 90 MILES $9.00/HOUR *THESE ARE NOT MILES DRIVEN. ZONES ARE BASED ON DELORRNE STREET ATLAS USA 2006 PLUS.....	$ 63.50	29.73

ELEC0048-029 01/01/2025

	Rates	Fringes
CABLE SPLICER (COWLITZ AND WAHKIAKUM COUNTY)	$ 44.22	21.50
ELECTRICIAN (COWLITZ AND WAHKIAKUM COUNTY)	$ 63.50	29.73

ELEC0073-001 07/01/2025

	Rates	Fringes
CABLE SPLICER (ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN COUNTIES)	$ 34.10	16.68
ELECTRICIAN (ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN COUNTIES)	$ 49.55	19.09

ELEC0076-002 08/31/2025

	Rates	Fringes
CABLE SPLICER (GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON COUNTIES)	$ 71.65	26.76
ELECTRICIAN (GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON COUNTIES)	$ 65.14	26.56

ELEC0112-005 06/01/2025

	Rates	Fringes
CABLE SPLICER (ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA WALLA, YAKIMA COUNTIES)	$ 63.00	27.87
ELECTRICIAN (ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA WALLA, YAKIMA COUNTIES)	$ 60.00	27.78

ELEC0191-003 06/01/2022

	Rates	Fringes
CABLE SPLICER (ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES)	$ 44.23	17.73
ELECTRICIAN (ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES)	$ 53.20	27.51

ELEC0191-004 06/01/2018

	Rates	Fringes
CABLE SPLICER (CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES)	$ 40.82	17.63
ELECTRICIAN (CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES)	$ 42.45	21.34

ENGI0302-092 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1- ASPHALT PLANT OPERATORS; CABLEWAYS; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT OVER 42M; CRANES: 45 TONS THROUGH 99 TONS, UNDER 150? OF BOOM (INCLUDING JIB WITH ATTACHMENTS); OVERHEAD, BRIDGE TYPE: 45 TONS THROUGH 99 TONS; DERRICKS: ON BUILDING WORK; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT 45		

YARDS & OVER; LOADER: OVERHEAD 6 YARDS BUT NOT INCLUDING 8 YARDS; MOTOR PATROL GRADERS; MUCKING MACHINE, MOLE, TUNNEL DRILL, BORING, ROAD HEADER AND/OR SHIELD; QUAD 9, HD 41, D10 AND OVER; REMOTE CONTROL OPERATOR ON RUBBER TIRED EARTH MOVING EQUIPMENT; ROLLAGON; SCRAPERS, SELF-PROPELLED: 45 YARDS AND OVER; SPREADER: TOPSIDER & SCREEDMAN; SHOVEL, EXCAVATOR, BACKHOE: OVER 30 METRIC TONS AND UP TO 50 METRIC TONS; SLIPFORM PAVERS; TRANSPORTERS: ALL TRACK OR TRUCK TYPE; WELDER. (KING AND SNOHOMISH COUNTIES).....$ 61.93 27.57

POWER EQUIPMENT OPERATOR: GROUP 1A- CRANES: 100 TONS THROUGH 199 TONS, OR 150' OF BOOM (INCLUDING JIB WITH ATTACHMENTS); DRILLING MACHINE; OVERHEAD, BRIDGE TYPE: 100 TONS AND OVER; TOWER CRANE: UP TO 175' IN HEIGHT BASE TO BOOM; LOADER: OVERHEAD 8 YARDS & OVER; SHOVEL, EXCAVATOR, BACKHOES: OVER 50 METRIC TONS AND UP TO 90 METRIC TONS; MECHANICS. (KING AND SNOHOMISH COUNTIES).....$ 62.85 27.57

POWER EQUIPMENT OPERATOR: GROUP 1AA- CRANES: 200 TONS- 299 TONS, OR 250' OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES: FRICTION CRANES THROUGH 199 TONS; LEVERMAN; SHOVEL, EXCAVATOR, BACKHOES: OVER 90 METRIC TONS; TOWER CRANE: OVER 175'?THROUGH 250'?IN HEIGHT, BASE TO BOOM. (KING AND SNOHOMISH COUNTIES).....$ 63.75 27.57

POWER EQUIPMENT OPERATOR: GROUP 1AAA- CRANES: 300 TONS AND OVER OR 300'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES FRICTION: 200 TONS AND OVER; TOWER CRANES: OVER 250'?IN HEIGHT FROM BASE TO BOOM. (KING AND SNOHOMISH COUNTIES).....$ 64.66 27.57

POWER EQUIPMENT OPERATOR: GROUP 2- BATCH PLANT OPERATOR: CONCRETE; BARRIER MACHINE: (ZIPPER); BUMP CUTTER; CRANES: 20 TONS THROUGH 44 TONS WITH ATTACHMENTS; OVERHEAD, BRIDGE TYPE CRANE: 20 TONS THROUGH 44 TONS; CHIPPER; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT UP TO 42M; CRUSHER; DECK ENGINEER/DECK WINCHES (POWER); GRADE ENGINEER: USING BLUE PRINTS, CUT SHEETS, ETC.; FINISHING MACHINE: BIDWELL AND GAMACO & SIMILAR EQUIPMENT; GUARDRAIL PUNCH; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT UNDER 45 YARDS; HORIZONTAL/DIRECTIONAL DRILL OPERATOR; LOADERS: OVERHEAD UNDER 6 YARDS; LOADERS: PLANT FEED; LOCOMOTIVES: ALL; MATERIAL TRANSFER DEVICE; PILEDRIVER: (OTHER THAN CRANE MOUNT); QUICK TOWER: NO CAB, UNDER 100 FEET IN HEIGHT BASE TO BOOM; ROTO-MILL, ROTO-GRINDER; SHOVEL, EXCAVATOR, BACKHOE, TRACTOR: 15 TO 30 METRIC TONS; SUBGRADER TRIMMER; SCRAPER: SELF PROPELLED UNDER 45 YARDS; TRUCK CRANE OILER/DRIVER: 100 TONS AND OVER; TRUCK MOUNT PORTABLE CONVEYOR; -VAC TRUCK (VACTOR GUZZLER, HYDRO EXCAVATOR); YO YO PAY DOZER. (KING AND SNOHOMISH COUNTIES).....$ 61.14 27.57

POWER EQUIPMENT OPERATOR: GROUP 3- CRANES: THROUGH 19 TONS WITH ATTACHMENTS, A-FRAME OVER 10 TONS;

CONCRETE PUMP: MOUNTED OR TRAILER HIGH PRESSURE LINE PUMP, PUMP HIGH PRESSURE; CONVEYORS; DOZERS: D-9 & UNDER; DRILL OILERS: AUGER TYPE, TRUCK OR CRANE MOUNT; FORKLIFT: 3000 LBS AND OVER WITH ATTACHMENTS; HORIZONTAL/DIRECTIONAL DRILL LOCATOR; OUTSIDE HOISTS (ELEVATORS AND MANLIFTS), AIR TUGGERS, STRATO; TOWER BUCKET ELEVATORS; HYDRALIFTS/BOOM TRUCKS: OVER 10 TONS; LOADERS: ELEVATING TYPE BELT; PLANT OILER: ASPHALT, CRUSHER; RIGGER/SIGNAL PERSON, BELLMAN (CERTIFIED); ROLLER: PLANT MIX OR MULTI-LIFT MATERIALS; SAWS: CONCRETE; SCRAPERS: CONCRETE & CARRY ALL SERVICE ENGINEERS: EQUIPMENT; TRENCHING MACHINES; TRUCK CRANE OILER/DRIVER: UNDER 100 TONS; SHOVEL, EXCAVATOR, BACKHOE, TRACTORS: UNDER 15 METRIC TONS. (KING AND SNOHOMISH COUNTIES).....$ 60.46 27.57

POWER EQUIPMENT OPERATOR: GROUP 4- ASSISTANT ENGINEER; BOBCAT; BROOMS; COMPRESSOR; CONCRETE FINISH MACHINE: LASER SCREED; CRANES, A-FRAME: 10 TONS AND UNDER; ELEVATOR AND MAN-LIFT: PERMANENT AND SHAFT TYPE; FORKLIFTS: UNDER 3000 LBS. WITH ATTACHMENTS; GRADECHECKER/STAKEMAN; HYDRALIFTS/BOOM TRUCKS: 10 TONS AND UNDER; OIL DISTRIBUTORS, BLOWER DISTRIBUTION & MULCH SEEDING OPERATOR; PAVEMENT BREAKER; POSTHOLE DIGGER: MECHANICAL; POWER PLANT; PUMPS: WATER; -RIGGER AND BELLMAN; ROLLER: OTHER THAN PLANT MIX; WHEEL TRACTORS: FARM ALL TYPE; SHOTCRETE/GUNITE EQUIPMENT; BROKK: REMOTE DEMOLITION EQUIPMENT. (KING AND SNOHOMISH COUNTIES).....$ 56.63 27.57

ENGI0302-093 06/01/2025

	Rates	Fringes

POWER EQUIPMENT OPERATOR: GROUP 1- ASPHALT PLANT OPERATORS; CABLEWAYS; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT OVER 42M; CRANES: 45 TONS THROUGH 99 TONS, UNDER 150'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); OVERHEAD, BRIDGE TYPE: 45 TONS THROUGH 99 TONS; DERRICKS: ON BUILDING WORK; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT 45 YARDS & OVER; LOADER: OVERHEAD 6 YARDS BUT NOT INCLUDING 8 YARDS; MOTOR PATROL GRADERS; MUCKING MACHINE, MOLE, TUNNEL DRILL, BORING, ROAD HEADER AND/OR SHIELD; QUAD 9, HD 41, D10 AND OVER; REMOTE CONTROL OPERATOR ON RUBBER TIRED EARTH MOVING EQUIPMENT; ROLLAGON; SCRAPERS, SELF-PROPELLED: 45 YARDS AND OVER; SPREADER: TOPSIDER & SCREEDMAN; SHOVEL, EXCAVATOR, BACKHOE: OVER 30 METRIC TONS AND UP TO 50 METRIC TONS; SLIPFORM PAVERS; TRANSPORTERS: ALL TRACK OR TRUCK TYPE; WELDER. (SKAGIT AND WHATCOM COUNTIES).....$ 61.47 27.57

POWER EQUIPMENT OPERATOR: GROUP 1A- CRANES: 100 TONS THROUGH 199 TONS, OR 150'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); DRILLING MACHINE; OVERHEAD, BRIDGE TYPE: 100 TONS AND OVER; TOWER CRANE: UP TO

175'?IN HEIGHT BASE TO BOOM; LOADER: OVERHEAD 8 YARDS & OVER; SHOVEL, EXCAVATOR, BACKHOES: OVER 50 METRIC TONS AND UP TO 90 METRIC TONS; MECHANICS. (SKAGIT AND WHATCOM COUNTIES).....$ 62.39 27.57

POWER EQUIPMENT OPERATOR: GROUP 1AA- CRANES: 200 TONS- 299 TONS, OR 250'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES: FRICTION CRANES THROUGH 199 TONS; LEVERMAN; SHOVEL, EXCAVATOR, BACKHOES: OVER 90 METRIC TONS; TOWER CRANE: OVER 175'?THROUGH 250'?IN HEIGHT, BASE TO BOOM. (SKAGIT AND WHATCOM COUNTIES).....$ 63.29 27.57

POWER EQUIPMENT OPERATOR: GROUP 1AAA- CRANES: 300 TONS AND OVER OR 300'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES FRICTION: 200 TONS AND OVER; TOWER CRANES: OVER 250'?IN HEIGHT FROM BASE TO BOOM. (SKAGIT AND WHATCOM COUNTIES).....$ 64.19 27.57

POWER EQUIPMENT OPERATOR: GROUP 2- BATCH PLANT OPERATOR: CONCRETE; BARRIER MACHINE: (ZIPPER); BUMP CUTTER; CRANES: 20 TONS THROUGH 44 TONS WITH ATTACHMENTS; OVERHEAD, BRIDGE TYPE CRANE: 20 TONS THROUGH 44 TONS; CHIPPER; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT UP TO 42M; CRUSHER; DECK ENGINEER/DECK WINCHES (POWER); GRADE ENGINEER: USING BLUE PRINTS, CUT SHEETS, ETC.; FINISHING MACHINE: BIDWELL AND GAMACO & SIMILAR EQUIPMENT; GUARDRAIL PUNCH; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT UNDER 45 YARDS; HORIZONTAL/DIRECTIONAL DRILL OPERATOR; LOADERS: OVERHEAD UNDER 6 YARDS; LOADERS: PLANT FEED; LOCOMOTIVES: ALL; MATERIAL TRANSFER DEVICE; PILEDRIVER: (OTHER THAN CRANE MOUNT); QUICK TOWER: NO CAB, UNDER 100 FEET IN HEIGHT BASE TO BOOM; ROTO-MILL, ROTO-GRINDER; SHOVEL, EXCAVATOR, BACKHOE, TRACTOR: 15 TO 30 METRIC TONS; SUBGRADER TRIMMER; SCRAPER: SELF PROPELLED UNDER 45 YARDS; TRUCK CRANE OILER/DRIVER: 100 TONS AND OVER; TRUCK MOUNT PORTABLE CONVEYOR; -VAC TRUCK (VACTOR GUZZLER, HYDRO EXCAVATOR); YO YO PAY DOZER. (SKAGIT AND WHATCOM COUNTIES).....$ 60.69 27.57

POWER EQUIPMENT OPERATOR: GROUP 3- CRANES: THROUGH 19 TONS WITH ATTACHMENTS, A-FRAME OVER 10 TONS; CONCRETE PUMP: MOUNTED OR TRAILER HIGH PRESSURE LINE PUMP, PUMP HIGH PRESSURE; CONVEYORS; DOZERS: D-9 & UNDER; DRILL OILERS: AUGER TYPE, TRUCK OR CRANE MOUNT; FORKLIFT: 3000 LBS AND OVER WITH ATTACHMENTS; HORIZONTAL/DIRECTIONAL DRILL LOCATOR; OUTSIDE HOISTS (ELEVATORS AND MANLIFTS), AIR TUGGERS, STRATO; TOWER BUCKET ELEVATORS; HYDRALIFTS/BOOM TRUCKS: OVER 10 TONS; LOADERS: ELEVATING TYPE BELT; PLANT OILER: ASPHALT, CRUSHER; RIGGER/SIGNAL PERSON, BELLMAN (CERTIFIED); ROLLER: PLANT MIX OR MULTI-LIFT MATERIALS; SAWS: CONCRETE; SCRAPERS: CONCRETE & CARRY ALL SERVICE ENGINEERS: EQUIPMENT; TRENCHING MACHINES; TRUCK CRANE OILER/DRIVER: UNDER 100 TONS; SHOVEL, EXCAVATOR, BACKHOE, TRACTORS: UNDER 15 METRIC TONS. (SKAGIT

AND WHATCOM COUNTIES).....$ 60.02 27.57
POWER EQUIPMENT OPERATOR: GROUP 4- ASSISTANT ENGINEER; BOBCAT; BROOMS; COMPRESSOR; CONCRETE FINISH MACHINE: LASER SCREED; CRANES, A-FRAME: 10 TONS AND UNDER; ELEVATOR AND MAN-LIFT: PERMANENT AND SHAFT TYPE; FORKLIFTS: UNDER 3000 LBS. WITH ATTACHMENTS; GRADECHECKER/STAKEMAN; HYDRALIFTS/BOOM TRUCKS: 10 TONS AND UNDER; OIL DISTRIBUTORS, BLOWER DISTRIBUTION & MULCH SEEDING OPERATOR; PAVEMENT BREAKER; POSTHOLE DIGGER: MECHANICAL; POWER PLANT; PUMPS: WATER; -RIGGER AND BELLMAN; ROLLER: OTHER THAN PLANT MIX; WHEEL TRACTORS: FARM ALL TYPE; SHOTCRETE/GUNITE EQUIPMENT; BROKK: REMOTE DEMOLITION EQUIPMENT SKAGIT AND WHATCOM COUNTIES.$ 56.19 27.57

ENGI0302-094 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1- ASPHALT PLANT OPERATORS; CABLEWAYS; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT OVER 42M; CRANES: 45 TONS THROUGH 99 TONS, UNDER 150'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); OVERHEAD, BRIDGE TYPE: 45 TONS THROUGH 99 TONS; DERRICKS: ON BUILDING WORK; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT 45 YARDS & OVER; LOADER: OVERHEAD 6 YARDS BUT NOT INCLUDING 8 YARDS; MOTOR PATROL GRADERS; MUCKING MACHINE, MOLE, TUNNEL DRILL, BORING, ROAD HEADER AND/OR SHIELD; QUAD 9, HD 41, D10 AND OVER; REMOTE CONTROL OPERATOR ON RUBBER TIRED EARTH MOVING EQUIPMENT; ROLLAGON; SCRAPERS, SELF-PROPELLED: 45 YARDS AND OVER; SPREADER: TOPSIDER & SCREEDMAN; SHOVEL, EXCAVATOR, BACKHOE: OVER 30 METRIC TONS AND UP TO 50 METRIC TONS; SLIPFORM PAVERS; TRANSPORTERS: ALL TRACK OR TRUCK TYPE; WELDER. (KITSAP COUNTY)	$ 60.93	27.57
POWER EQUIPMENT OPERATOR: GROUP 1A- CRANES: 100 TONS THROUGH 199 TONS, OR 150'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); DRILLING MACHINE; OVERHEAD, BRIDGE TYPE: 100 TONS AND OVER; TOWER CRANE: UP TO 175'?IN HEIGHT BASE TO BOOM; LOADER: OVERHEAD 8 YARDS & OVER; SHOVEL, EXCAVATOR, BACKHOES: OVER 50 METRIC TONS AND UP TO 90 METRIC TONS; MECHANICS. KITSAP COUNTY	$ 61.83	27.57
POWER EQUIPMENT OPERATOR: GROUP 1AA- CRANES: 200 TONS- 299 TONS, OR 250'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES: FRICTION CRANES THROUGH 199 TONS; LEVERMAN; SHOVEL, EXCAVATOR, BACKHOES: OVER 90 METRIC TONS; TOWER CRANE: OVER 175' THROUGH 250'?IN HEIGHT, BASE TO BOOM. (KITSAP COUNTY)	$ 62.73	27.57
POWER EQUIPMENT OPERATOR: GROUP 1AAA- CRANES: 300 TONS AND OVER OR 300'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES FRICTION: 200 TONS AND OVER; TOWER CRANES: OVER 250'?IN HEIGHT FROM BASE TO BOOM. (KITSAP COUNTY)	$ 63.62	27.57

POWER EQUIPMENT OPERATOR: GROUP 2- BATCH PLANT OPERATOR: CONCRETE; BARRIER MACHINE: (ZIPPER); BUMP CUTTER; CRANES: 20 TONS THROUGH 44 TONS WITH ATTACHMENTS; OVERHEAD, BRIDGE TYPE CRANE: 20 TONS THROUGH 44 TONS; CHIPPER; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT UP TO 42M; CRUSHER; DECK ENGINEER/DECK WINCHES (POWER); GRADE ENGINEER: USING BLUE PRINTS, CUT SHEETS, ETC.; FINISHING MACHINE: BIDWELL AND GAMACO & SIMILAR EQUIPMENT; GUARDRAIL PUNCH; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT UNDER 45 YARDS; HORIZONTAL/DIRECTIONAL DRILL OPERATOR; LOADERS: OVERHEAD UNDER 6 YARDS; LOADERS: PLANT FEED; LOCOMOTIVES: ALL; MATERIAL TRANSFER DEVICE; PILEDRIVER: (OTHER THAN CRANE MOUNT); QUICK TOWER: NO CAB, UNDER 100 FEET IN HEIGHT BASE TO BOOM; ROTO-MILL, ROTO-GRINDER; SHOVEL, EXCAVATOR, BACKHOE, TRACTOR: 15 TO 30 METRIC TONS; SUBGRADER TRIMMER; SCRAPER: SELF PROPELLED UNDER 45 YARDS; TRUCK CRANE OILER/DRIVER: 100 TONS AND OVER; TRUCK MOUNT PORTABLE CONVEYOR; -VAC TRUCK (VACTOR GUZZLER, HYDRO EXCAVATOR); YO YO PAY DOZER. (KITSAP COUNTY).....$ 60.14 27.57

POWER EQUIPMENT OPERATOR: GROUP 3- CRANES: THROUGH 19 TONS WITH ATTACHMENTS, A-FRAME OVER 10 TONS; CONCRETE PUMP: MOUNTED OR TRAILER HIGH PRESSURE LINE PUMP, PUMP HIGH PRESSURE; CONVEYORS; DOZERS: D-9 & UNDER; DRILL OILERS: AUGER TYPE, TRUCK OR CRANE MOUNT; FORKLIFT: 3000 LBS AND OVER WITH ATTACHMENTS; HORIZONTAL/DIRECTIONAL DRILL LOCATOR; OUTSIDE HOISTS (ELEVATORS AND MANLIFTS), AIR TUGGERS, STRATO; TOWER BUCKET ELEVATORS; HYDRALIFTS/BOOM TRUCKS: OVER 10 TONS; LOADERS: ELEVATING TYPE BELT; PLANT OILER: ASPHALT, CRUSHER; RIGGER/SIGNAL PERSON, BELLMAN (CERTIFIED); ROLLER: PLANT MIX OR MULTI-LIFT MATERIALS; SAWS: CONCRETE; SCRAPERS: CONCRETE & CARRY ALL SERVICE ENGINEERS: EQUIPMENT; TRENCHING MACHINES; TRUCK CRANE OILER/DRIVER: UNDER 100 TONS; SHOVEL, EXCAVATOR, BACKHOE, TRACTORS: UNDER 15 METRIC TONS. (KITSAP COUNTY).....$ 59.49 27.57

POWER EQUIPMENT OPERATOR: GROUP 4- ASSISTANT ENGINEER; BOBCAT; BROOMS; COMPRESSOR; CONCRETE FINISH MACHINE: LASER SCREED; CRANES, A-FRAME: 10 TONS AND UNDER; ELEVATOR AND MAN-LIFT: PERMANENT AND SHAFT TYPE; FORKLIFTS: UNDER 3000 LBS. WITH ATTACHMENTS; GRADECHECKER/STAKEMAN; HYDRALIFTS/BOOM TRUCKS: 10 TONS AND UNDER; OIL DISTRIBUTORS, BLOWER DISTRIBUTION & MULCH SEEDING OPERATOR; PAVEMENT BREAKER; POSTHOLE DIGGER: MECHANICAL; POWER PLANT; PUMPS: WATER; RIGGER AND BELLMAN; ROLLER: OTHER THAN PLANT MIX; WHEEL TRACTORS: FARM ALL TYPE; SHOTCRETE/GUNITE EQUIPMENT; BROKK: REMOTE DEMOLITION EQUIPMENT. (KITSAP COUNTY).....$ 55.68 27.57

ENGI0302-095 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1- ASPHALT PLANT OPERATORS; CABLEWAYS; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT OVER 42M; CRANES: 45 TONS THROUGH 99 TONS, UNDER 150'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); OVERHEAD, BRIDGE TYPE: 45 TONS THROUGH 99 TONS; DERRICKS: ON BUILDING WORK; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT 45 YARDS & OVER; LOADER: OVERHEAD 6 YARDS BUT NOT INCLUDING 8 YARDS; MOTOR PATROL GRADERS; MUCKING MACHINE, MOLE, TUNNEL DRILL, BORING, ROAD HEADER AND/OR SHIELD; QUAD 9, HD 41, D10 AND OVER; REMOTE CONTROL OPERATOR ON RUBBER TIRED EARTH MOVING EQUIPMENT; ROLLAGON; SCRAPERS, SELF-PROPELLED: 45 YARDS AND OVER; SPREADER: TOPSIDER & SCREEDMAN; SHOVEL, EXCAVATOR, BACKHOE: OVER 30 METRIC TONS AND UP TO 50 METRIC TONS; SLIPFORM PAVERS; TRANSPORTERS: ALL TRACK OR TRUCK TYPE; WELDER. (CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS (WEST OF THE 120TH MERIDIAN), MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES)	$ 60.67	27.57
POWER EQUIPMENT OPERATOR: GROUP 1A- CRANES: 100 TONS THROUGH 199 TONS, OR 150'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); DRILLING MACHINE; OVERHEAD, BRIDGE TYPE: 100 TONS AND OVER; TOWER CRANE: UP TO 175'?IN HEIGHT BASE TO BOOM; LOADER: OVERHEAD 8 YARDS & OVER; SHOVEL, EXCAVATOR, BACKHOES: OVER 50 METRIC TONS AND UP TO 90 METRIC TONS; MECHANICS. (CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS (WEST OF THE 120TH MERIDIAN), MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES)	$ 61.56	27.57
POWER EQUIPMENT OPERATOR: GROUP 1AA- CRANES: 200 TONS- 299 TONS, OR 250' OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES: FRICTION CRANES THROUGH 199 TONS; LEVERMAN; SHOVEL, EXCAVATOR, BACKHOES: OVER 90 METRIC TONS; TOWER CRANE: OVER 175' THROUGH 250' IN HEIGHT, BASE TO BOOM. (CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS (WEST OF THE 120TH MERIDIAN), MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES)	$ 62.47	27.57
POWER EQUIPMENT OPERATOR: GROUP 1AAA- CRANES: 300 TONS AND OVER OR 300'?OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANES FRICTION: 200 TONS AND OVER; TOWER CRANES: OVER 250'?IN HEIGHT FROM BASE TO BOOM. (CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS (WEST OF		

THE 120TH MERIDIAN), MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES).....$ 63.35 27.57

POWER EQUIPMENT OPERATOR: GROUP 2- BATCH PLANT OPERATOR: CONCRETE; BARRIER MACHINE: (ZIPPER); BUMP CUTTER; CRANES: 20 TONS THROUGH 44 TONS WITH ATTACHMENTS; OVERHEAD, BRIDGE TYPE CRANE: 20 TONS THROUGH 44 TONS; CHIPPER; CONCRETE PUMP: TRUCK MOUNT WITH BOOM ATTACHMENT UP TO 42M; CRUSHER; DECK ENGINEER/DECK WINCHES (POWER); GRADE ENGINEER: USING BLUE PRINTS, CUT SHEETS, ETC.; FINISHING MACHINE: BIDWELL AND GAMACO & SIMILAR EQUIPMENT; GUARDRAIL PUNCH; HARD TAIL END DUMP: ARTICULATING OFF-ROAD EQUIPMENT UNDER 45 YARDS; HORIZONTAL/DIRECTIONAL DRILL OPERATOR; LOADERS: OVERHEAD UNDER 6 YARDS; LOADERS: PLANT FEED; LOCOMOTIVES: ALL; MATERIAL TRANSFER DEVICE; PILEDRIVER: (OTHER THAN CRANE MOUNT); QUICK TOWER: NO CAB, UNDER 100 FEET IN HEIGHT BASE TO BOOM; ROTO-MILL, ROTO-GRINDER; SHOVEL, EXCAVATOR, BACKHOE, TRACTOR: 15 TO 30 METRIC TONS; SUBGRADER TRIMMER; SCRAPER: SELF PROPELLED UNDER 45 YARDS; TRUCK CRANE OILER/DRIVER: 100 TONS AND OVER; TRUCK MOUNT PORTABLE CONVEYOR; VAC TRUCK (VACTOR GUZZLER, HYDRO EXCAVATOR); YO YO PAY DOZER. (CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS (WEST OF THE 120TH MERIDIAN), MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES).....$ 59.88 27.57

POWER EQUIPMENT OPERATOR: GROUP 3- CRANES: THROUGH 19 TONS WITH ATTACHMENTS, A-FRAME OVER 10 TONS; CONCRETE PUMP: MOUNTED OR TRAILER HIGH PRESSURE LINE PUMP, PUMP HIGH PRESSURE; CONVEYORS; DOZERS: D-9 & UNDER; DRILL OILERS: AUGER TYPE, TRUCK OR CRANE MOUNT; FORKLIFT: 3000 LBS AND OVER WITH ATTACHMENTS; HORIZONTAL/DIRECTIONAL DRILL LOCATOR; OUTSIDE HOISTS (ELEVATORS AND MANLIFTS), AIR TUGGERS, STRATO; TOWER BUCKET ELEVATORS; HYDRALIFTS/BOOM TRUCKS: OVER 10 TONS; LOADERS: ELEVATING TYPE BELT; PLANT OILER: ASPHALT, CRUSHER; RIGGER/SIGNAL PERSON, BELLMAN (CERTIFIED); ROLLER: PLANT MIX OR MULTI-LIFT MATERIALS; SAWS: CONCRETE; SCRAPERS: CONCRETE & CARRY ALL SERVICE ENGINEERS: EQUIPMENT; TRENCHING MACHINES; TRUCK CRANE OILER/DRIVER: UNDER 100 TONS; SHOVEL, EXCAVATOR, BACKHOE, TRACTORS: UNDER 15 METRIC TONS. (CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS (WEST OF THE 120TH MERIDIAN), MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES).....$ 59.23 27.57

POWER EQUIPMENT OPERATOR: GROUP 4- ASSISTANT ENGINEER; BOBCAT; BROOMS; COMPRESSOR; CONCRETE FINISH MACHINE: LASER SCREED; CRANES, A-FRAME: 10 TONS AND UNDER; ELEVATOR AND MAN-LIFT: PERMANENT AND SHAFT TYPE; FORKLIFTS: UNDER 3000 LBS. WITH ATTACHMENTS; GRADECHECKER/STAKEMAN; HYDRALIFTS/BOOM TRUCKS: 10 TONS AND UNDER; OIL DISTRIBUTORS, BLOWER DISTRIBUTION & MULCH SEEDING OPERATOR; PAVEMENT BREAKER; POSTHOLE DIGGER: MECHANICAL; POWER PLANT; PUMPS: WATER; RIGGER AND BELLMAN; ROLLER: OTHER THAN PLANT MIX; WHEEL TRACTORS: FARM ALL TYPE; SHOTCRETE/GUNITE EQUIPMENT; BROKK: REMOTE DEMOLITION EQUIPMENT. (CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KITTITAS (WEST OF THE 120TH MERIDIAN), MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES)...$ 55.43 27.57

ENGI0302-124 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1- BIT GRINDERS; BOLT THREADING MACHINE; COMPRESSORS (UNDER 2000 CFM, GAS, DIESEL, OR ELECTRIC POWER); DECK HAND; FIREMAN & HEATER TENDER; HYDRO-SEEDER, MULCHER, NOZZLEMAN; OILER DRIVER, & CABLE TENDER, MUCKING MACHINE; PUMPMAN; ROLLERS, ALL TYPES ON SUBGRADE, INCLUDING SEAL AND CHIP COATINGS (FARM TYPE, CASE, JOHN DEERE & SIMILAR, OR COMPACTING VIBRATOR), EXCEPT WHEN PULLED BY DOZER WITH OPERABLE BLADE; WELDING MACHINE; CRANE OILER-DRIVER (CLD REQUIRED) & CABLE TENDER, MUCKING MACHINE. (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN)	$ 38.17	23.40
POWER EQUIPMENT OPERATOR: GROUP 2- A-FRAME TRUCK (SINGLE DRUM); ASSISTANT REFRIGERATION PLANT (UNDER 1000 TON); ASSISTANT PLANT OPERATOR, FIREMAN OR PUGMIXER (ASPHALT); BAGLEY OR STATIONARY SCRAPER; BELT FINISHING MACHINE; BLOWER OPERATOR (CEMENT); CEMENT HOG; COMPRESSOR (2000 CFM OR OVER, 2 OR MORE, GAS DIESEL OR ELECTRIC POWER); CONCRETE SAW (MULTIPLE CUT); DISTRIBUTOR LEVERMAN; DITCH WITCH OR SIMILAR; ELEVATOR HOISTING MATERIALS; DOPE POTS (POWER AGITATED); FORK LIFT OR LUMBER STACKER, HYDRA-LIFT & SIMILAR; GIN TRUCKS (PIPELINE); HOIST, SINGLE DRUM; LOADERS (BUCKET ELEVATORS AND CONVEYORS); LONGITUDINAL FLOAT; MIXER (PORTABLE-CONCRETE); PAVEMENT BREAKER, HYDRA-HAMMER & SIMILAR; POWER BROOM; RAILROAD BALLAST REGULATION OPERATOR (SELF-PROPELLED); RAILROAD POWER TAMPER OPERATOR (SELF-PROPELLED); RAILROAD TAMPER JACK OPERATOR (SELF-PROPELLED; SPRAY CURING MACHINE (CONCRETE); SPREADER BOX (SELF-PROPELLED); STRADDLE BUGGY (ROSS & SIMILAR ON CONSTRUCTION JOB ONLY); TRACTOR (FARM TYPE R/T WITH ATTACHMENT, EXCEPT		

BACKHOE); TUGGER OPERATOR. (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN) .....$ 38.56 23.40

POWER EQUIPMENT OPERATOR: GROUP 3- A-FRAME TRUCK (2 OR MORE DRUMS); ASSISTANT REFRIGERATION PLANT & CHILLER OPERATOR (OVER 1000 TON); BACKFILLERS (CLEVELAND & SIMILAR); BATCH PLANT & WET MIX OPERATOR, SINGLE UNIT (CONCRETE); BELT-CRETE CONVEYORS WITH POWER PACK OR SIMILAR; BELT LOADER (KOCAL OR SIMILAR); BENDING MACHINE; BOB CAT (SKID STEER); BORING MACHINE (EARTH); BORING MACHINE (ROCK UNDER 8 INCH BIT) (QUARRY MASTER, JOY OR SIMILAR); BUMP CUTTER (WAYNE, SAGINAU OR SIMILAR); CANAL LINING MACHINE (CONCRETE); CHIPPER (WITHOUT CRANE); CLEANING & DOPING MACHINE (PIPELINE); DECK ENGINEER; ELEVATING BELT-TYPE LOADER (EUCLID, BARBER GREEN & SIMILAR); ELEVATING GRADER-TYPE LOADER (DUMOR, ADAMS OR SIMILAR); GENERATOR PLANT ENGINEERS (DIESEL OR ELECTRIC); GUNNITE COMBINATION MIXER & COMPRESSOR; LOCOMOTIVE ENGINEER; MIXERMOBILE; MUCKING MACHINE; POSTHOLE AUGER OR PUNCH; PUMP (GROUT OR JET); SOIL STABILIZER (P & H OR SIMILAR); SPREADER MACHINE; DOZER/TRACTOR (UP TO D-6 OR EQUIVALENT) AND TRAXCAVATOR; TRAVERSE FINISH MACHINE; TURNHEAD OPERATOR. (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN) .....$ 39.31 23.40

POWER EQUIPMENT OPERATOR: GROUP 4- CONCRETE PUMPS (SQUEEZE-CRETE, FLOW-CRETE, PUMP- CRETE, WHITMAN & SIMILAR); CURB EXTRUDER (ASPHALT OR CONCRETE); DRILLS (CHURN, CORE, CALYX OR DIAMOND); EQUIPMENT SERVICEMAN; GREASER & OILER; HOIST (2 OR MORE DRUMS OR TOWER HOIST); LOADERS (OVERHEAD & FRONT-END, UNDER 4 YDS. R/T); REFRIGERATION PLANT ENGINEER (UNDER 1000 TON); RUBBER-TIRED SKIDDERS (R/T WITH OR WITHOUT ATTACHMENTS); SURFACE HEATER & PLANT MACHINE; TRENCHING MACHINES (UNDER 7 FT. DEPTH CAPACITY); TURNHEAD (WITH RE-SCREENING); VACUUM DRILL (REVERSE CIRCULATION DRILL UNDER 8 INCH BIT). (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN).....$ 39.51 23.40

POWER EQUIPMENT OPERATOR: GROUP 5- BACKHOE (UNDER 45,000 GW); BACKHOE & HOE RAM (UNDER 3/4 YD.); CARRYDECK & BOOM TRUCK (UNDER 25 TONS); CRANES (25 TONS & UNDER), ALL ATTACHMENTS INCLUDING CLAMSHELL, DRAGLINE; DERRICKS & STIFFLEGS (UNDER 65 TONS); DRILLING EQUIPMENT(8 INCH BIT & OVER) (ROBBINS, REVERSE CIRCULATION & SIMILAR); HOE RAM; PILEDRIVING ENGINEERS; PAVING (DUAL DRUM); RAILROAD TRACK LINER OPERAOTR (SELF-PROPELLED); REFRIGERATION PLANT ENGINEER (1000 TONS & OVER); SIGNALMAN (WHIRLEYS, HIGHLINE HAMMERHEADS OR SIMILAR); GRADE CHECKER. (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN).....$ 39.71 23.40

POWER EQUIPMENT OPERATOR: GROUP 6- ASPHALT PLANT OPERATOR; AUTOMATIC SUBGRADER (DITCHES & TRIMMERS)(AUTOGRADE, ABC, R.A. HANSEN & SIMILAR ON GRADE WIRE); BACKHOE (45,000 GW AND OVER TO 110,000 GW); BACKHOES & HOE RAM (3/4 YD. TO 3 YD.); BATCH PLANT (OVER 4 UNITS); BATCH & WET MIX OPERATOR (MULTIPLE UNITS, 2 & INCL. 4); BLADE OPERATOR (MOTOR PATROL & ATTACHMENTS); CABLE CONTROLLER (DISPATCHER); COMPACTOR (SELF-PROPELLED WITH BLADE); CONCRETE PUMP BOOM TRUCK; CONCRETE SLIP FORM PAVER; CRANES (OVER 25 TONS, TO AND INCLUDING 45 TONS), ALL ATTACHMENTS INCLUDING CLAMSHELL, DRAGLINE; CRUSHER, GRIZZLE & SCREENING PLANT OPERATOR; DOZER, 834 R/T & SIMILAR; DRILL DOCTOR; LOADER OPERATOR (FRONT-END & OVERHEAD, 4 YDS. INCL. 8 YDS.); MULTIPLE DOZER UNITS WITH SINGLE BLADE; PAVING MACHINE (ASPHALT AND CONCRETE); QUAD-TRACK OR SIMILAR EQUIPMENT; ROLLERMAN (FINISHING ASPHALT PAVEMENT); ROTO MILL (PAVEMENT GRINDER); SCRAPERS, ALL, RUBBER-TIRED; SCREED OPERATOR; SHOVEL(UNDER 3 YDS.); TRENCHING MACHINES (7 FT. DEPTH & OVER); TUG BOAT OPERATOR VACTOR GUZZLER, SUPER SUCKER; LIME BATCH TANK OPERATOR (RECYCLE TRAIN); LIME BRAIN OPERATOR (RECYCLE TRAIN); MOBILE CRUSHER OPERATOR (RECYCLE TRAIN). (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN) .....$ 40.00 23.40

POWER EQUIPMENT OPERATOR: GROUP 7- BACKHOE (OVER 110,000 GW); BACKHOES & HOE RAM (3 YDS & OVER); BLADE (FINISH & BLUETOP) AUTOMATIC, CMI, ABC, FINISH ATHEY & HUBER & SIMILAR WHEN USED AS AUTOMATIC; CABLEWAY OPERATORS; CONCRETE CLEANING/DECONTAMINATION MACHINE OPERATOR; CRANES (OVER 45 TONS TO BUT NOT INCLUDING 85 TONS), ALL ATTACHMENTS INCLUDING CLAMSHELL AND DRAGINE; DERRICKS & STIFFLEYS (65 TONS & OVER); ELEVATING BELT (HOLLAND TYPE); HEAVY EQUIPMENT ROBOTICS OPERATOR; LOADER (360 DEGREES REVOLVING KOEHRING SCOOPER OR SIMILAR); LOADERS (OVERHEAD & FRONT-END, OVER 8 YDS. TO 10 YDS.); RUBBER-TIRED SCRAPERS (MULTIPLE ENGINE WITH THREE OR MORE SCRAPERS); SHOVELS (3 YDS. & OVER); WHIRLEYS & HAMMERHEADS, ALL; H.D. MECHANIC; H.D. WELDER; HYDRAULIC PLATFORM TRAILERS (GOLDHOFER, SHAURERLY ANDSIMILAR); ULTRA HIGH PRESSURE WATERIET CUTTING TOOL SYSTEM OPERATOR (30,000 PSI); VACUUM BLASTING MACHINE OPERATOR. (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN) .....$ 40.39 23.40

POWER EQUIPMENT OPERATOR: GROUP 8- CRANES (85 TONS AND OVER, AND ALL CLIMBING, OVERHEAD,RAIL AND TOWER), ALL ATTACHMENTS INCLUDING CLAMSHELL, DRAGLINE; LOADERS (OVERHEAD AND FRONT-END, 10 YARDS AND OVER); HELICOPTER PILOT. (ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN).....$ 42.36 23.40

ENGI0302-125 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1- BIT GRINDERS; BOLT THREADING MACHINE; COMPRESSORS (UNDER 2000 CFM, GAS, DIESEL, OR ELECTRIC POWER); DECK HAND; FIREMAN & HEATER TENDER; HYDRO-SEEDER, MULCHER, NOZZLEMAN; OILER DRIVER, & CABLE TENDER, MUCKING MACHINE; PUMPMAN; ROLLERS, ALL TYPES ON SUBGRADE, INCLUDING SEAL AND CHIP COATINGS (FARM TYPE, CASE, JOHN DEERE & SIMILAR, OR COMPACTING VIBRATOR), EXCEPT WHEN PULLED BY DOZER WITH OPERABLE BLADE; WELDING MACHINE; CRANE OILER-DRIVER (CLD REQUIRED) & CABLE TENDER, MUCKING MACHINE. (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES)	$ 41.17	23.40
POWER EQUIPMENT OPERATOR: GROUP 2- A-FRAME TRUCK (SINGLE DRUM); ASSISTANT REFRIGERATION PLANT (UNDER 1000 TON); ASSISTANT PLANT OPERATOR, FIREMAN OR PUGMIXER (ASPHALT); BAGLEY OR STATIONARY SCRAPER; BELT FINISHING MACHINE; BLOWER OPERATOR (CEMENT); CEMENT HOG; COMPRESSOR (2000 CFM OR OVER, 2 OR MORE, GAS DIESEL OR ELECTRIC POWER); CONCRETE SAW (MULTIPLE CUT); DISTRIBUTOR LEVERMAN; DITCH WITCH OR SIMILAR; ELEVATOR HOISTING MATERIALS; DOPE POTS (POWER AGITATED); FORK LIFT OR LUMBER STACKER, HYDRA-LIFT & SIMILAR; GIN TRUCKS (PIPELINE); HOIST, SINGLE DRUM; LOADERS (BUCKET ELEVATORS AND CONVEYORS); LONGITUDINAL FLOAT; MIXER (PORTABLE-CONCRETE); PAVEMENT BREAKER, HYDRA-HAMMER & SIMILAR; POWER BROOM; RAILROAD BALLAST REGULATION OPERATOR (SELF-PROPELLED); RAILROAD POWER TAMPER OPERATOR (SELF-PROPELLED); RAILROAD TAMPER JACK OPERATOR (SELF-PROPELLED; SPRAY CURING MACHINE (CONCRETE); SPREADER BOX (SELF-PROPELLED); STRADDLE BUGGY (ROSS & SIMILAR ON CONSTRUCTION JOB ONLY); TRACTOR (FARM TYPE R/T WITH ATTACHMENT, EXCEPT BACKHOE); TUGGER OPERATOR. (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES)	$ 41.56	23.40
POWER EQUIPMENT OPERATOR: GROUP 3- A-FRAME TRUCK (2 OR MORE DRUMS); ASSISTANT REFRIGERATION PLANT & CHILLER OPERATOR (OVER 1000 TON); BACKFILLERS (CLEVELAND & SIMILAR); BATCH PLANT & WET MIX OPERATOR, SINGLE UNIT (CONCRETE); BELT-CRETE CONVEYORS WITH POWER PACK OR SIMILAR; BELT LOADER (KOCAL OR SIMILAR); BENDING MACHINE; BOB CAT (SKID STEER); BORING MACHINE (EARTH); BORING MACHINE (ROCK UNDER 8 INCH BIT) (QUARRY MASTER, JOY OR SIMILAR); BUMP CUTTER (WAYNE, SAGINAU OR SIMILAR);		

CANAL LINING MACHINE (CONCRETE); CHIPPER (WITHOUT CRANE); CLEANING & DOPING MACHINE (PIPELINE); DECK ENGINEER; ELEVATING BELT-TYPE LOADER (EUCLID, BARBER GREEN & SIMILAR); ELEVATING GRADER-TYPE LOADER (DUMOR, ADAMS OR SIMILAR); GENERATOR PLANT ENGINEERS (DIESEL OR ELECTRIC); GUNNITE COMBINATION MIXER & COMPRESSOR; LOCOMOTIVE ENGINEER; MIXERMOBILE; MUCKING MACHINE; POSTHOLE AUGER OR PUNCH; PUMP (GROUT OR JET); SOIL STABILIZER (P & H OR SIMILAR); SPREADER MACHINE; DOZER/TRACTOR (UP TO D-6 OR EQUIVALENT) AND TRAXCAVATOR; TRAVERSE FINISH MACHINE; TURNHEAD OPERATOR. (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES) ....$ 42.31 23.40

POWER EQUIPMENT OPERATOR: GROUP 4- CONCRETE PUMPS (SQUEEZE-CRETE, FLOW-CRETE, PUMP- CRETE, WHITMAN & SIMILAR); CURB EXTRUDER (ASPHALT OR CONCRETE); DRILLS (CHURN, CORE, CALYX OR DIAMOND); EQUIPMENT SERVICEMAN; GREASER & OILER; HOIST (2 OR MORE DRUMS OR TOWER HOIST); LOADERS (OVERHEAD & FRONT-END, UNDER 4 YDS. R/T); REFRIGERATION PLANT ENGINEER (UNDER 1000 TON); RUBBER-TIRED SKIDDERS (R/T WITH OR WITHOUT ATTACHMENTS); SURFACE HEATER & PLANT MACHINE; TRENCHING MACHINES (UNDER 7 FT. DEPTH CAPACITY); TURNHEAD (WITH RE-SCREENING); VACUUM DRILL (REVERSE CIRCULATION DRILL UNDER 8 INCH BIT). (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES) .....$ 42.51 23.40

POWER EQUIPMENT OPERATOR: GROUP 5- BACKHOE (UNDER 45,000 GW); BACKHOE & HOE RAM (UNDER 3/4 YD.); CARRYDECK & BOOM TRUCK (UNDER 25 TONS); CRANES (25 TONS & UNDER), ALL ATTACHMENTS INCLUDING CLAMSHELL, DRAGLINE; DERRICKS & STIFFLEGS (UNDER 65 TONS); DRILLING EQUIPMENT(8 INCH BIT & OVER) (ROBBINS, REVERSE CIRCULATION & SIMILAR); HOE RAM; PILEDRIVING ENGINEERS; PAVING (DUAL DRUM); RAILROAD TRACK LINER OPERAOTR (SELF-PROPELLED); REFRIGERATION PLANT ENGINEER (1000 TONS & OVER); SIGNALMAN (WHIRLEYS, HIGHLINE HAMMERHEADS OR SIMILAR); GRADE CHECKER. (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES) .....$ 42.71 23.40

POWER EQUIPMENT OPERATOR: GROUP 6- ASPHALT PLANT OPERATOR; AUTOMATIC SUBGRADER (DITCHES & TRIMMERS)(AUTOGRADE, ABC, R.A. HANSEN & SIMILAR ON GRADE WIRE); BACKHOE (45,000 GW AND OVER TO 110,000 GW); BACKHOES & HOE RAM (3/4 YD. TO 3 YD.); BATCH PLANT (OVER 4 UNITS); BATCH & WET MIX OPERATOR (MULTIPLE UNITS, 2 & INCL. 4); BLADE OPERATOR

(MOTOR PATROL & ATTACHMENTS); CABLE CONTROLLER (DISPATCHER); COMPACTOR (SELF-PROPELLED WITH BLADE); CONCRETE PUMP BOOM TRUCK; CONCRETE SLIP FORM PAVER; CRANES (OVER 25 TONS, TO AND INCLUDING 45 TONS), ALL ATTACHMENTS INCLUDING CLAMSHELL, DRAGLINE; CRUSHER, GRIZZLE & SCREENING PLANT OPERATOR; DOZER, 834 R/T & SIMILAR; DRILL DOCTOR; LOADER OPERATOR (FRONT-END & OVERHEAD, 4 YDS. INCL. 8 YDS.); MULTIPLE DOZER UNITS WITH SINGLE BLADE; PAVING MACHINE (ASPHALT AND CONCRETE); QUAD-TRACK OR SIMILAR EQUIPMENT; ROLLERMAN (FINISHING ASPHALT PAVEMENT); ROTO MILL (PAVEMENT GRINDER); SCRAPERS, ALL, RUBBER-TIRED; SCREED OPERATOR; SHOVEL(UNDER 3 YDS.); TRENCHING MACHINES (7 FT. DEPTH & OVER); TUG BOAT OPERATOR VACTOR GUZZLER, SUPER SUCKER; LIME BATCH TANK OPERATOR (RECYCLE TRAIN); LIME BRAIN OPERATOR (RECYCLE TRAIN); MOBILE CRUSHER OPERATOR (RECYCLE TRAIN). (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES).....$ 43.05 23.40

POWER EQUIPMENT OPERATOR: GROUP 7- BACKHOE (OVER 110,000 GW); BACKHOES & HOE RAM (3 YDS & OVER); BLADE (FINISH & BLUETOP) AUTOMATIC, CMI, ABC, FINISH ATHEY & HUBER & SIMILAR WHEN USED AS AUTOMATIC; CABLEWAY OPERATORS; CONCRETE CLEANING/DECONTAMINATION MACHINE OPERATOR; CRANES (OVER 45 TONS TO BUT NOT INCLUDING 85 TONS), ALL ATTACHMENTS INCLUDING CLAMSHELL AND DRAGINE; DERRICKS & STIFFLEYS (65 TONS & OVER); ELEVATING BELT (HOLLAND TYPE); HEAVY EQUIPMENT ROBOTICS OPERATOR; LOADER (360 DEGREES REVOLVING KOEHRING SCOOPER OR SIMILAR); LOADERS (OVERHEAD & FRONT-END, OVER 8 YDS. TO 10 YDS.); RUBBER-TIRED SCRAPERS (MULTIPLE ENGINE WITH THREE OR MORE SCRAPERS); SHOVELS (3 YDS. & OVER); WHIRLEYS & HAMMERHEADS, ALL; H.D. MECHANIC; H.D. WELDER; HYDRAULIC PLATFORM TRAILERS (GOLDHOFER, SHAURERLY ANDSIMILAR); ULTRA HIGH PRESSURE WATERIET CUTTING TOOL SYSTEM OPERATOR (30,000 PSI); VACUUM BLASTING MACHINE OPERATOR. (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES).....$ 43.39 23.40

POWER EQUIPMENT OPERATOR: GROUP 8- CRANES (85 TONS AND OVER, AND ALL CLIMBING, OVERHEAD,RAIL AND TOWER), ALL ATTACHMENTS INCLUDING CLAMSHELL, DRAGLINE; LOADERS (OVERHEAD AND FRONT-END, 10 YARDS AND OVER); HELICOPTER PILOT. (ADAMS, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, STEVENS, AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES).....$ 45.36 23.40

ENGI0612-001 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1A- CRANES, 100 TONS THRU 199 TONS, OR 250 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); TOWER CRANE OVER 175 FT IN HEIGHT, BASE TO BOOM. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (PIERCE COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....	$ 62.32	27.32
POWER EQUIPMENT OPERATOR: GROUP 1AA- CRANES- 200 TONS TO 300 TONS, OR 250 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS; TOWER CRANE OVER 175 FT IN HEIGHT, BASE TO BOOM. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT		

SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (PIERCE COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 63.22 27.32

POWER EQUIPMENT OPERATOR: GROUP 1AAA- CRANES-OVER 300 TONS OR 300 FT OF BOOM (INCLUDING JIB WITH ATTACHMENT). (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (PIERCE COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 64.11 27.32

POWER EQUIPMENT OPERATOR: GROUP 1- CABLEWAY; CRANES 45 TONS THRU 99 TONS UNDER 150 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANE-OVERHEAD, BRIDGE TYPE, 45 TONS THRU 99 TONS; DERRICKS ON BUILDING WORK; EXCAVATOR, SHOVEL, BACKHOES OVER 3 YARDS AND UNDER 6 YARDS; HARD TAIL END DUMP ARTICULATING OFF-ROAD EQUIPMENT 45 YARDS AND OVER; LOADER-OVERHEAD, 6 YARDS TO, BUT NOT INCLUDING, 8 YARDS; MUCKING MACHINE, MOLE, TUNNEL, DRILL AND/OR SHIELD; QUAD 9 HD 41, D-10; REMOTE CONTROL OPERATOR ON RUBBER TIRED EARTH MOVING EQUIPMENT; ROLLAGON; SCRAPES-SELF-PROPELLED 45 YARDS AND OVER; SLIPFORM PAVERS; TRANSPORTERS, ALL TRACK OR TRUCK TYPE. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE

BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (PIERCE COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 61.41 27.32

POWER EQUIPMENT OPERATOR: GROUP 2- BARRIER MACHINE (ZIPPER); BATCH PLANT OPERATOR-CONCRETE; BUMP CUTTER; CRANES, 20 TONS THRU 44 TONS WITH ATTACHMENTS; CRANE-OVERHEAD, BRIDGE TYPE, 20 TONS THROUGH 44 TONS; CHIPPER; CONCRETE PUMP-TRUCK MOUNT WITH BOOM ATTACHMENT; CRUSHER; DECK ENGINEER/DECK WINCHES (POWER); DRILLING MACHINE; EXCAVATOR, SHOVEL, BACKHOE-3 YARDS AND UNDER; FINISHING MACHINE, BIDWELL, GAMACO AND SIMILAR EQUIPMENT; GUARDRAIL PUNCH; LOADERS, OVERHEAD OUNDER 6 YARDS; LOADERS-PLANT FEED; LOCOMOTIVES-ALL; MECHANICS-ALL; MIXERS, ASHALT PLANT; MOTOR PATROL GRADERS, FINISHING; PILEDRIVER (OTHER THAN CRANE MOUNT); ROTO-MILL, ROTO-GRINDER; SCREEDMAN, SPREADER, TOPSIDE OPERATOR-BLAW KNOX, CEDAR RAPIDS, JAEGER, CATERPILLAR, BARBAR GREEN; SCRAPER-SELF-PROPELLED, HARD TAIL END DUMP, ARTICULATING OFF-ROAD EQUIPMENT-UNDER 45 YARDS; SUBGRADER TRIMMER; TRACTORS, BACKHOE OVER 75 HP; TRANSFER MATERIAL SERVICE MACHINE-SHUTTLE BUGGY, BLAW KNOWX-ROADTEC; TRUCK CRANE OILER/DRIVER-100 TONS AND OVER; TRUCK MOUNT PORTABLE CONVEYOR; YO YO PAY. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT

UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (PIERCE COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 60.63 27.32

POWER EQUIPMENT OPERATOR: GROUP 3- CONVEYORS; CRANES THROUGH 19 TONS WITH ATTACHMENTS; CRANE-A-FRAME OVER 10 TONS; DRILL OILERS-AUGER TYPE, TRUCK OR CRANE MOUNT; DOZER-D-9 AND UNDER; FORKLIFT-3000 LBS. AND OVER WITH ATTACHMENTS; HORIZONTAL/DIRECTIONAL DRILL LOCATOR; OUTSIDE HOISTS (ELEVATORS AND MANLIFTS), AIR TUGGERS, STRATO TOWER BUCKET AND ELEVATORS; HYDRALIFTS/BOOM TRUCKS OVER 10 TONS; LOADERS-ELEVATING TYPE, BELT; MOTOR PATROL GRADER-NONFINISHING; PLANT OILER-ASPHALT, CRUSHER; PUMP-CONCRETE; ROLLER, PLANT MIX OR MULTI-LIFT MATERIALS; SAWS-CONCRETE; SCRAPERS, CONCRETE AND CARRY ALL; SERVICE ENGINEERS-EQUIPMENT; TRENCHING MACHINES; TRUCK CRANE OILER/DRIVER UNDER 100 TONS; TRACTORS, BACKHOE UNDER 75 HP. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE

PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (PIERCE COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 59.96 27.32

POWER EQUIPMENT OPERATOR: GROUP 4- ASSISTANT ENGINEER; BOBCAT; BROOMS; COMPRESSOR; CONCRETE FINISH MACHINE-LASER SCREED; CRANES A-FRAME 10 TONS AND UNDER; ELEVATOR AND MANLIFT (PERMANENT AND SHAFT TYPE); FORKLIFTS-UNDER 3000 LBS. WITH ATTACHMENTS; GRADECHECKER, STAKEHOP; HYDRALIFTS/BOOM TRUCKS, 10 TONS AND UNDER; OIL DISTRIBUTORS, BLOWER DISTRIBUTION AND MULCH SEEDING OPERATOR; PAVEMENT BREAKER; POSTHOLD DIGGER-MECHANICAL; POWER PLANT; PUMPS-WATER; RIGGER AND BELLMAN; ROLLER-OTHER THAN PLANT MIX; WHEEL TRACTORS, FARMALL TYPE; SHOTCRETE/GUNITE EQUIPMENT OPERATOR. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (PIERCE COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 56.15 27.32

ENGI0612-008 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1A- CRANES, 100 TONS THRU 199 TONS, OR 150 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANE-OVERHEAD, BRIDGE TYPE, 100 TONS AND OVER; TOWER CRANE UP TO 175 FT IN		

HEIGHT BASE TO BOOM; LOADERS-OVERHEAD, 8 YARDS AND OVER; SHOVELS, EXCAVATOR, BACKHOES-6 YARDS AND OVER WITH ATTACHMENTS. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 61.22 27.32

POWER EQUIPMENT OPERATOR: GROUP 1AA- CRANES- 200 TONS TO 300 TONS, OR 250 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); TOWER CRANE OVER 175 FT IN HEIGHT, BASE TO BOOM. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A

HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 62.12 27.32

POWER EQUIPMENT OPERATOR: GROUP 1AAA- CRANES-OVER 300 TONS OR 300 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS). (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 62.99 27.32

POWER EQUIPMENT OPERATOR: GROUP 1- CABLEWAY; CRANES 45 TONS THRU 99 TONS UNDER 150 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANE-OVERHEAD, VRIDGE TYPE, 45 TONS THRU 99 TONS; DERRICKS ON BUILDING WORK; EXCAVATOR, SHOVEL, BACKHOES OVER 3 YARDS AND UNDER 6 YARDS; HARD TAIL END DUMP ARTICULATING OFF-ROAD EQUIPMENT 45 YARDS AND OVER; LOADER-OVERHEAD, 6 YARDS TO, BUT NOT INCLUDING, 8 YARDS; MUCKING MACHINE, MOLE, TUNNEL, DRILL AND/OR SHIELD; QUAD 9 HD 41, D-10; REMOTE CONTROL OPERATOR

ON RUBBER TIRED EARTH MOVING EQUIPMENT; ROLLAGON; SCRAPERS-SELF-PROPELLED 45 YARDS AND OVER; SLIPFORM PAVERS; TRANSPORTERS, ALL TRACK OR TRUCK TYPE. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 60.32 27.32

POWER EQUIPMENT OPERATOR: GROUP 2- BARRIER MACHINE (ZIPPER); BATCH PLANT OPERATOR-CONCRETE; BUMP CUTTER; CRANES, 20 TONS THRU 44 TONS WITH ATTACHMENTS; CRANE-OVERHED, BRIDGE TYPE, 20 TONS THROUGH 44 TONS; CHIPPER; CONCRETE PUMP-TRUCK MOUNT WITH BOOM ATTACHMENT; CRUSHER; DECK ENGINEER/DECK WINCHES (POWER); DRILLING MACHINE; EXCAVATOR, SHOVEL, BACKHOE-3 YARDS AND UNDER; FINISHING MACHINE, BIDWELL, GAMACO AND SIMILAR EQUIPMENT; GUARDRAIL PUNCH; LODERS, OVERHEAD UNDER 6 YARDS; LODERS-PLANT FEED; LOCOMOTIVES-ALL; MECHANICS-ALL; MIXERS, ASPHALT PLANT; MOTOR PATROL GRADERS, FINISHING; PILEDRIVER (OTHER THAN CRANE MOUNT); ROTO-MILL, ROTO-GRINDER; SCREEDMAN, SPREADER, TOPSIDE OPERATOR-BLAW KNOX, CEDAR RAPIDS, JAEGER, CATERPILLAR, BARBAR GREEN; SCRAPER-SELF-PROPELLED, HARD TAIL END DUMP, ARTICULATING OFF-ROAD EQUIPMENT-UNDER 45 YARDS; SUBGRADER TRIMMER; TRACTORS, BACKHOE OVER 75 HP; TRANSFER MATERIAL SERVICE MACHINE-SHUTTLE BUGGY, BLAW KNOX-ROADTEC; TRUCK CRANE OILER/DRIVER-100 TONS AND OVER; TRUCK MOUNT PORTABLE CONVEYOR; YO YO PAY. (ON THE

FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 59.56 27.32

POWER EQUIPMENT OPERATOR: GROUP 3- CONVEYORS; CRANES THROUGH 19 TONS WITH ATTACHMENTS; CRANE-A-FRAME OVER 10 TONS; DRILL OILERS-AUGER TYPE, TRUCK OR CRANE MOUNT; DOZER-D-9 AND UNDER; FORKLIFT-3000 LBS. AND OVER WITH ATTACHMENTS; HORIZONTAL/DIRECTIONAL DRILL LOCATOR; OUTSIDE HOISTS-(ELEVATORS AND MANLIFTS), AIR TUGGERS, STRATO TOWER BUCKET ELEVATORS; HYDRALIFTS/BOOM TRUCKS OVER 10 TONS; LOADERS-ELEVATING TYPE, BELT; MOTOR PATROL GRADER-NONFINISHING; PLANT OILER-ASPHALT, CRUSHER; PUMP-CONCRETE; ROLLER, PLANT MIX OR MULTI-LIFT MATERIALS; SAWS-CONCRETE; SCRAPERS, CONCRETE AND CARRY ALL; SERVICE ENGINEERS-EQUIPMENT; TRENCHING MACHINES; TRUCK CRANE OILER/DRIVER UNDER 100 TONS; TRACTORS, BACKHOE UNDER 75 HP. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN

$150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 58.89 27.32

POWER EQUIPMENT OPERATOR: GROUP 4- ASSISTANT ENGINEER; BOBCAT; BROOMS; COMPRESSOR; CONCRETE FINISH MACHINE-LASER SCREED; CRANES A-FRAME 10 TONS AND UNDER; ELEVATOR AND MANLIFT (PERMANENT AND SHAFT TYPE); FORKLIFTS0UNDER 3000 LBS. WITH ATTACHMENTS; GRADECHECKER, STAKEHOP; HYDRALIFTS/BOOM TRUCKS, 10 TONS AND UNDER; OIL DISTRIBUTORS, BLOWER DISTRIBUTION AND MULCH SEEDING OPERATOR; PAVEMENT BREAKER; POSTHOLE DIGGER-MECHANICAL; POWER PLANT; PUMPS-WATER; RIGGER AND BELLMAN; ROLLER-OTHER THAN PLANT MIX; WHEEL TRACTORS, FARMALL TYPE; SHOTCRETE/GUNITE EQUIPMENT OPERATOR. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS

""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (LEWIS AND PACIFIC (PORTION LYING NORTH OF A PARALLEL LINE EXTENDING WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA) COUNTIES; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 55.13 27.32

ENGI0612-012 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1A- CRANES, 100 TONS THRU 199 TONS, OR 150 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANE-OVERHEAD, BRIDGE TYPE, 100 TONS AND OVER; TOWER CRANE UP TO 175 FT IN HEIGHT BASE TO BOOM; LOADERS-OVERHEAD, 8 YARDS AND OVER; SHOVELS, EXCAVATOR, BACKHOES-6 YARDS AND OVER WITH ATTACHMENTS.(ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (THURSTON COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 61.81	27.32
POWER EQUIPMENT OPERATOR: GROUP 1AA- CRANES- 200 TONS TO 300 TONS, OR 250 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); TOWER CRANE OVER 175 FT IN HEIGHT, BASE TO BOOM. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION		

EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (THURSTON COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 62.71 27.32

POWER EQUIPMENT OPERATOR: GROUP 1AAA- CRANES-OVER 300 TONS OR 300 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS). (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (THURSTON COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 63.59 27.32

POWER EQUIPMENT OPERATOR: GROUP 1- CABLEWAY; CRANES 45 TONS THRU 99 TONS UNDER 150 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS); CRANE-OVERHEAD, VRIDGE TYPE, 45 TONS THRU 99 TONS; DERRICKS ON BUILDING WORK; EXCAVATOR, SHOVEL, BACKHOES OVER 3 YARDS AND UNDER 6 YARDS; HARD TAIL END DUMP ARTICULATING OFF-ROAD EQUIPMENT 45 YARDS AND OVER; LOADER-OVERHEAD, 6 YARDS TO, BUT NOT INCLUDING, 8 YARDS; MUCKING MACHINE, MOLE, TUNNEL, DRILL AND/OR SHIELD; QUAD 9 HD 41, D-10; REMOTE CONTROL OPERATOR ON RUBBER TIRED EARTH MOVING EQUIPMENT; ROLLAGON; SCRAPERS-SELF-PROPELLED 45 YARDS AND OVER; SLIPFORM PAVERS; TRANSPORTERS, ALL TRACK OR TRUCK TYPE. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (THURSTON COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 60.91 27.32

POWER EQUIPMENT OPERATOR: GROUP 2- BARRIER MACHINE (ZIPPER); BATCH PLANT OPERATOR-CONCRETE; BUMP CUTTER; CRANES, 20 TONS THRU 44 TONS WITH ATTACHMENTS; CRANE-OVERHED, BRIDGE TYPE, 20 TONS THROUGH 44 TONS; CHIPPER; CONCRETE PUMP-TRUCK MOUNT WITH BOOM ATTACHMENT; CRUSHER; DECK ENGINEER/DECK WINCHES (POWER); DRILLING MACHINE; EXCAVATOR, SHOVEL, BACKHOE-3 YARDS AND UNDER; FINISHING MACHINE, BIDWELL, GAMACO AND SIMILAR EQUIPMENT; GUARDRAIL PUNCH; LODERS, OVERHEAD UNDER 6 YARDS; LODERS-PLANT FEED; LOCOMOTIVES-ALL; MECHANICS-ALL; MIXERS, ASPHALT PLANT; MOTOR PATROL GRADERS, FINISHING; PILEDRIVER (OTHER THAN CRANE MOUNT); ROTO-MILL, ROTO-GRINDER; SCREEDMAN, SPREADER, TOPSIDE OPERATOR-BLAW KNOX, CEDAR RAPIDS, JAEGER,

CATERPILLAR, BARBAR GREEN; SCRAPER-SELF-PROPELLED, HARD TAIL END DUMP, ARTICULATING OFF-ROAD EQUIPMENT-UNDER 45 YARDS; SUBGRADER TRIMMER; TRACTORS, BACKHOE OVER 75 HP; TRANSFER MATERIAL SERVICE MACHINE-SHUTTLE BUGGY, BLAW KNOX-ROADTEC; TRUCK CRANE OILER/DRIVER-100 TONS AND OVER; TRUCK MOUNT PORTABLE CONVEYOR; YO YO PAY. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (THURSTON COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 60.14 27.32

POWER EQUIPMENT OPERATOR:GROUP 3- CONVEYORS; CRANES THROUGH 19 TONS WITH ATTACHMENTS; CRANE-A-FRAME OVER 10 TONS; DRILL OILERS-AUGER TYPE, TRUCK OR CRANE MOUNT; DOZER-D-9 AND UNDER; FORKLIFT-3000 LBS. AND OVER WITH ATTACHMENTS; HORIZONTAL/DIRECTIONAL DRILL LOCATOR; OUTSIDE HOISTS-(ELEVATORS AND MANLIFTS), AIR TUGGERS, STRATO TOWER BUCKET ELEVATORS; HYDRALIFTS/BOOM TRUCKS OVER 10 TONS; LOADERS-ELEVATING TYPE, BELT; MOTOR PATROL GRADER-NONFINISHING; PLANT OILER-ASPHALT, CRUSHER; PUMP-CONCRETE; ROLLER, PLANT MIX OR MULTI-LIFT MATERIALS; SAWS-CONCRETE; SCRAPERS, CONCRETE AND CARRY ALL; SERVICE ENGINEERS-EQUIPMENT; TRENCHING MACHINES; TRUCK CRANE OILER/DRIVER UNDER 100 TONS; TRACTORS, BACKHOE UNDER 75 HP. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY

PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C"" SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (THURSTON COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 59.46 27.32

POWER EQUIPMENT OPERATOR: GROUP 4- ASSISTANT ENGINEER; BOBCAT; BROOMS; COMPRESSOR; CONCRETE FINISH MACHINE-LASER SCREED; CRANES A-FRAME 10 TONS AND UNDER; ELEVATOR AND MANLIFT (PERMANENT AND SHAFT TYPE); FORKLIFTS0UNDER 3000 LBS. WITH ATTACHMENTS; GRADECHECKER, STAKEHOP; HYDRALIFTS/BOOM TRUCKS, 10 TONS AND UNDER; OIL DISTRIBUTORS, BLOWER DISTRIBUTION AND MULCH SEEDING OPERATOR; PAVEMENT BREAKER; POSTHOLE DIGGER-MECHANICAL; POWER PLANT; PUMPS-WATER; RIGGER AND BELLMAN; ROLLER-OTHER THAN PLANT MIX; WHEEL TRACTORS, FARMALL TYPE; SHOTCRETE/GUNITE EQUIPMENT OPERATOR. (ON THE FOLLOWING PROJECTS, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS: 1. PROJECTS INVOLVING WORK ON STRUCTURES SUCH AS BUILDINGS AND BRIDGES WHOSE TOTAL VALUE IS LESS THAN $1.5 MILLION EXCLUDING MECHANICAL, ELECTRICAL, AND UTILITY PORTIONS OF THE CONTRACT. 2. PROJECTS OF LESS THAN $1 MILLION WHERE NO BUILDING IS INVOLVED. SURFACING AND PAVING INCLUDED, BUT UTILITIES EXCLUDED. 3. MARINE PROJECTS (DOCKS, WHARFS, ETC.) LESS THAN $150,000. ON ALL OTHER WORK, THE PUBLISHED RATES APPLY.) HANDLING OF HAZARDOUS WASTE MATERIALS: PERSONNEL IN ALL CRAFT CLASSIFICATIONS SUBJECT TO WORKING INSIDE A FEDERALLY DESIGNATED HAZARDOUS PERIMETER SHALL BE ELIGIBLE FOR COMPENSATION IN ACCORDANCE WITH THE FOLLOWING GROUP SCHEDULE RELATIVE TO THE LEVEL OF HAZARDOUS WASTE AS OUTLINED IN THE SPECIFIC HAZARDOUS WASTE PROJECT SITE SAFETY PLAN. H-1 BASE WAGE RATE WHEN ON A HAZARDOUS WASTE SITE WHEN NOT OUTFITTED WITH PROTECTIVE CLOTHING, CLASS ""D"" SUIT- BASE WAGE RATE PLUS $0.50 PER HOUR. H-2 CLASS ""C""

SUIT- BASE WAGE RATE PLUS $1.00 PER HOUR. H-3 CLASS ""B"" SUIT- BASE WAGE RATE PLUS $1.50 PER HOUR. H-4 CLASS ""A"" SUIT- BASE WAGE RATE PLUS $2.00 PER HOUR. (THURSTON COUNTY; ZONE DIFFERENTIAL: ZONE 1 (0-25 RADIUS MILES)= BASE RATE. ZONE 2: (26-45 RADIUS MILES)= $1.00. ZONE 3: (OVER 45 RADIUS MILES) = $1.30. BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA).....$ 55.68 27.32

ENGI0701-002 01/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 1- CONCRETE BATCH PLANT AND/OR WET MIX THREE (3) UNITS OR MORE; CRANE, FLOATING 150 TON BUT LESS THAN 250 TON; CRANE, 200 TON THROUGH 299 TON WITH 200' BOOM OR LESS (INCLUDING JOB, INSERTS AND/OR ATTACHMENTS); CRANE, 90 TON THROUGH 199 TON WITH OVER 200' BOOM (INCLUDING JIB, INSERTS AND/OR ATTACHMENTS); CRANE, TOWER CRANE WITH 175' TOWER OR LESS AND WITH LESS THAN 200' JIB; CRANE, WHIRLEY 90 TON AND OVER; HELICOPTER WHEN USED IN ERECTING WORK. (CLARK, COWLITX, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES). ZONE DIFFERENTIALS (ADD TO ZONE 1 RATES). ZONE 1: BASE RATE. ZONE 2: $3.00. ZONE 3: $6.00. FOR THE FOLLOWING METROPOLITAN COUNTIES: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED: ALL JOBS OR PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS, AND MARION COUNTIES, WEST OF THE WESTERN OBUNDARY OF MT. HOOD NATIONAL FOREST AND WEST OF MILE POST 30 ON I-84 AND WEST OF MILE POST 30 ON STATE HIGHWAY 26 AND WEST OF MILE POST 30 ON HIGHWAY 22 AND ALL JOBS OR PROJECTS LOCATED IN YAMHILL COUNTY, WASHINGTON COUNTY, AND COLUMBIA COUNTY AND ALL JOBS OR PROJECTS LOCATED IN CLARK & COWLITZ COUNTY IN THE MT. ST. HELENS ""BLAST ZONE"" SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED IN THE AREA OUTSIDE THE IDENTIFIED BOUNDARY ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND CITY HALL SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE PORTLAND CITY HALL, BUT OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATION. FOR THE FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE, GRANTS PASS, KLAMATH FALLS, MEDFORD, AND ROSEBURG- ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 30 MILES AND LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE		

ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 58.94 17.15
POWER EQUIPMENT OPERATOR: GROUP 1A- CRANE, FLOATING 250 TON AND OVER; CRANE, 200 TON THROUGH 299 TON, WITH OVER 200' BOOM (INCLUDING JIB, INSERTS AND/OR ATTACHMENTS); CRANE, 300 TON THROUGH 399 TON; CRANE, TOWER CRANE WITH OVER 175' TOWER OR OVER 200' JIB; CRANE, TOWER CRANE ON RAIL SYSTEM OR 2ND TOWER OR MORE IN WORK RADIUS. (CLARK, COWLITX, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES). ZONE DIFFERENTIALS (ADD TO ZONE 1 RATES). ZONE 1: BASE RATE. ZONE 2: $3.00. ZONE 3: $6.00. FOR THE FOLLOWING METROPOLITAN COUNTIES: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED: ALL JOBS OR PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS, AND MARION COUNTIES, WEST OF THE WESTERN OBUNDARY OF MT. HOOD NATIONAL FOREST AND WEST OF MILE POST 30 ON I-84 AND WEST OF MILE POST 30 ON STATE HIGHWAY 26 AND WEST OF MILE POST 30 ON HIGHWAY 22 AND ALL JOBS OR PROJECTS LOCATED IN YAMHILL COUNTY, WASHINGTON COUNTY, AND COLUMBIA COUNTY AND ALL JOBS OR PROJECTS LOCATED IN CLARK & COWLITZ COUNTY IN THE MT. ST. HELENS ""BLAST ZONE"" SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED IN THE AREA OUTSIDE THE IDENTIFIED BOUNDARY ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND CITY HALL SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE PORTLAND CITY HALL, BUT OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATION. FOR THE FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE, GRANTS PASS, KLAMATH FALLS, MEDFORD, AND ROSEBURG- ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 30 MILES AND LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE
ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 61.10 17.15
POWER EQUIPMENT OPERATOR: GROUP 1B- CRANE, 300 TON THROUGH 399 TON, WITH OVER 200' BOOM (INCLUDING JIB, INSERTS AND/OR ATTACHMENTS); FLOATING CRANE, 350 TON AND OVER; CRANE, 400 TON AND OVER. (CLARK, COWLITX, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES). ZONE DIFFERENTIALS (ADD TO ZONE 1 RATES). ZONE 1: BASE RATE. ZONE 2: $3.00. ZONE 3: $6.00. FOR THE FOLLOWING METROPOLITAN COUNTIES: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED: ALL JOBS OR PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS,

AND MARION COUNTIES, WEST OF THE WESTERN OBUNDARY
OF MT. HOOD NATIONAL FOREST AND WEST OF MILE POST
30 ON I-84 AND WEST OF MILE POST 30 ON STATE
HIGHWAY 26 AND WEST OF MILE POST 30 ON HIGHWAY 22
AND ALL JOBS OR PROJECTS LOCATED IN YAMHILL COUNTY,
WASHINGTON COUNTY, AND COLUMBIA COUNTY AND ALL JOBS
OR PROJECTS LOCATED IN CLARK & COWLITZ COUNTY IN
THE MT. ST. HELENS ""BLAST ZONE"" SHALL RECEIVE ZONE
1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS
LOCATED IN THE AREA OUTSIDE THE IDENTIFIED BOUNDARY
ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND
CITY HALL SHALL RECEIVE ZONE II PAY FOR ALL
CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE
THAN 50 MILES FROM THE PORTLAND CITY HALL, BUT
OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE
ZONE III PAY FOR ALL CLASSIFICATION. FOR THE
FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE,
GRANTS PASS, KLAMATH FALLS, MEDFORD, AND ROSEBURG-
ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE
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FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS
LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY
HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE
ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 63.26 17.15
POWER EQUIPMENT OPERATOR: GROUP 2- ASPHALT PLANT
(ANY TYPE); ASPHALT ROTO-MILL, PAVEMENT PROFILER 8'
LATERAL CUT AND OVER; AUTO GRADER OR ""TRIMMER"";
BLADE, ROBOTIC; BULLDOZER, ROBOTIC EQUIPMENT (ANY
TYPE); BULLDOZER, OVER 120,000 LBS. AND ABOVE;
CONCRETE BATCH PLANT AND/OR WET MIX 1 AND 2 DRUM;
CONCRETE DIAMOND HEAD PROFILER; CANAL TRIMMER;
CONCRETE, AUTOMATIC SLIP FORM PAVER (ASSISTANT TO
THE OPERATOR REQUIRED); CRANE, BOOM TRUCK 50 TON
AND WITH OVER 150' BOOM AND OVER; CRANE, FLOATING
(DERRICK BARGE) 30 TON BUT LESS THAN 150 TON;
CRANE, CABLEWAY 25 TON AND OVER; CRANE, FLOATING
CLAMSHELL 3 CU. YDS. AND OVER; CRANE, 90 TON
THROUGH 199 TON UP TO AND INCLUDING 200' OF BOOM
(INCLUDING JIB INSERTS AND/OR ATTACHMENTS); CRANE,
50 TON THROUGH 89 TON WITH OVER 150' BOOM
(INCLUDING JIB INSERTS AND/OR ATTACHMENTS); CRANE,
WHIRLEY UNDER 90 TON; CRUSHER PLANT; EXCAVATOR OVER
130,000 LBS.; LOADER 120,000 LBS. AND ABOVE; REMOTE
CONTROLLED EARTH MOVING EQUIPMENT; SHOVEL,
DRAGLINE, CLAMSHELL, 5 CU. YDS. AND OVER;
UNDERWATER EQUIPMENT REMOTE OR OTHERWISE, WHEN USED
IN CONSTRUCTION WORK; WHEEL EXCAVATOR ANY SIZE.
(CLARK, COWLITX, KLICKITAT, PACIFIC (SOUTH),
SKAMANIA, AND WAHKIAKUM COUNTIES). ZONE
DIFFERENTIALS (ADD TO ZONE 1 RATES). ZONE 1: BASE
RATE. ZONE 2: $3.00. ZONE 3: $6.00. FOR THE
FOLLOWING METROPOLITAN COUNTIES: MULTNOMAH;

CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND
COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON
WITH MODIFICATIONS AS INDICATED: ALL JOBS OR
PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS, AND
MARION COUNTIES, WEST OF THE WESTERN OBUNDARY OF
MT. HOOD NATIONAL FOREST AND WEST OF MILE POST 30
ON I-84 AND WEST OF MILE POST 30 ON STATE HIGHWAY
26 AND WEST OF MILE POST 30 ON HIGHWAY 22 AND ALL
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ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND
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OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE
ZONE III PAY FOR ALL CLASSIFICATION. FOR THE
FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE,
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ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE
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SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS.
ALL JOBS OR PROJECTS LOCATED MORE THAN 30 MILES AND
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THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE II PAY
FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS
LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY
HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE
ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 57.03 17.15
POWER EQUIPMENT OPERATOR: GROUP 3- BULLDOZER, OVER
70,000 LBS. UP TO AND INCLUDING 120,000 LBS.;
CRANE, BOOM TRUCK 50 TON AND OVER WITH LESS THAN
150' BOOM; CRANE, 50 TON THROUGH 89 TON WITH 150'
BOOM OR LESS (INCLUDING JIB INSERTS AND/OR
ATTACHMENTS); CRANE, SHOVEL, DRAGLINE OR CLAMSHELL
3 CU. YDS. BUT LESS THAN 5 CU. YDS.; EXCAVATOR OVER
80,000 LBS. THROUGH 130.000 LBS.; LOADER 60,000
LBS. AND LESS THAN 120,000 LBS. (CLARK, COWLITX,
KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM
COUNTIES). ZONE DIFFERENTIALS (ADD TO ZONE 1
RATES). ZONE 1: BASE RATE. ZONE 2: $3.00. ZONE 3:
$6.00. FOR THE FOLLOWING METROPOLITAN COUNTIES:
MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL;
AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON
WITH MODIFICATIONS AS INDICATED: ALL JOBS OR
PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS, AND
MARION COUNTIES, WEST OF THE WESTERN OBUNDARY OF
MT. HOOD NATIONAL FOREST AND WEST OF MILE POST 30
ON I-84 AND WEST OF MILE POST 30 ON STATE HIGHWAY
26 AND WEST OF MILE POST 30 ON HIGHWAY 22 AND ALL
JOBS OR PROJECTS LOCATED IN YAMHILL COUNTY,
WASHINGTON COUNTY, AND COLUMBIA COUNTY AND ALL JOBS
OR PROJECTS LOCATED IN CLARK & COWLITZ COUNTY IN

THE MT. ST. HELENS ""BLAST ZONE"" SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED IN THE AREA OUTSIDE THE IDENTIFIED BOUNDARY ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND CITY HALL SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE PORTLAND CITY HALL, BUT OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATION. FOR THE FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE, GRANTS PASS, KLAMATH FALLS, MEDFORD, AND ROSEBURG- ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 30 MILES AND LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 55.88 17.15

POWER EQUIPMENT OPERATOR: GROUP 4- ASPHALT, SCREED; ASPHALT PAVER; ASPHALT ROTO-MILL, PAVEMENT PROFILER, UNDER 8' LATERAL CUT; ASPHALT, MATEIRLA TRANSFER VEHICLE OPERATOR; BACK FILLING MACHINE; BACKHOE, ROBOTIC, TRACK AND WHEEL TYPE UP TO AND INCLUDING 20,000 LBS. WITH ANY ATTACHMENTS; BLADE (ANY TYPE); BOATMAN; BORING MACHINE; BULLDOZER OVER 20,000 LBS. AND MORE THAN 100 HORSE UP TO 70,000 LBS.; CABLE-PLOW (ANY TYPE); CABLEWAY UP TO 25 TON; CAT DRILL (JOHN HENRY); CHIPPERS; COMPACTOR, MULTI-ENGINE; COMPACTOR, ROBOTIC; COMPACTOR WITH BLAD SELF-PROPELLED; CONCRETE, BREAKER; CONCRETE, GROUT PLANT; CONCRETE, MIXER MOBILE; CONCRETE, PAVING ROAD MIXER; CONCRETE, REINFORCED TANK BANDING MACHINE; CRANE, BOOM TRUCK 20 TON AND UNDER 50 TON; CRANE, BRIDGE LOCOMOTIVE, GANTRY AND OVERHEAD; CRANE, CARRY DECK; CRANE, CHICAGO BOOM AND SIMILAR TYPES; CRANE, DERRICK OPERATOR UNDER 100 TON; CRANE, FLOATING CLAMSHELL, DRAGLINE, ETC. OPERATOR, UNDER 3 CU. YDS. OR LESS THAN 30 TON; CRANE, UNDER 50 TON; CRANE, QUICK TOWER UNDER 100' IN HEIGHT AND LESS THAN 150' JIB (ON RAIL INCLUDED); DIESEL-ELECTRIC ENGINEER (PLANT OR FLOATING); DIRECTIONAL DRILL OVER 20,000 LBS. PULLBACK; DRILL CAT OPERATOR; DRILL DOCTOR AND/OR BIT GRINDER; DRILLER, PERCUSSION, DIAMOND, CORE, CABLE, ROTARY AND SIMILAR TYPE; EXCAVATOR OPERATOR OVER 20,000 LBS. THROUGH 80,000 LBS.; GENERATOR OPERATOR; GRADE-ALL; GUARDRAIL MACHINES, I.E. PUNCH, AUGER, ETC.' HAMMER OPERATOR (PILEDRIVER); HOIST, STIFF LEG, GUY DERRICK OR SIMILAR TYPE, 50 TON AND OVER; HOIST, 2 DRUMS OR MORE; HYDRO AXE (LOADER MOUNTED OR SIMILA TYPE); JACK OPERATOR, ELEVATING BARGES, BARGE OPERATOR, SELF-UNLOADING; LOADER OPERATOR, FRONT END AND OVERHEAD, 25,000

LBS. AND LESS THAN 60,000 LBS.; LOG SKIDDERS; PILEDRIVER OPERATOR (NOT CRANE TYPE); PIPE, BENDING, CLEANING, DOPING AND WRAPPING MACHINES; RAIL, BALLAST TAMPER MULTI-PURPOSE; RUBBER-TIRED DOZERS AND PUSHERS; SCRAPER, ALL TYPES; SIDE-BOOM; SKIP LOADER, DRAG BOX; STRUMP GRINDER (LOADER MOUNTED OR SIMILAR TYPE); SURFACE HEATER AND PLANER; TRACTOR, RUBBER-TIRED, OVER 50 HP FLYWHEEL; TRENCHING MACHINE 3' DEPTH AND DEEPER; TUB GRINDER (USED FOR WOOD DEBRIS); TUNNEL BORING MACHINE MECHANIC; TUNNEL, MUCKING MACHINE; ULTRA HIGH PRESSURE WATER JET CUTTING TOOL SYSTEM OPERATOR; VACUUM BLASTING MACHINE OPERATOR; WATER PULLS, WATER WAGONS. (CLARK, COWLITX, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES). ZONE DIFFERENTIALS (ADD TO ZONE 1 RATES). ZONE 1: BASE RATE. ZONE 2: $3.00. ZONE 3: $6.00. FOR THE FOLLOWING METROPOLITAN COUNTIES: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED: ALL JOBS OR PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS, AND MARION COUNTIES, WEST OF THE WESTERN OBUNDARY OF MT. HOOD NATIONAL FOREST AND WEST OF MILE POST 30 ON I-84 AND WEST OF MILE POST 30 ON STATE HIGHWAY 26 AND WEST OF MILE POST 30 ON HIGHWAY 22 AND ALL JOBS OR PROJECTS LOCATED IN YAMHILL COUNTY, WASHINGTON COUNTY, AND COLUMBIA COUNTY AND ALL JOBS OR PROJECTS LOCATED IN CLARK & COWLITZ COUNTY IN THE MT. ST. HELENS ""BLAST ZONE"" SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED IN THE AREA OUTSIDE THE IDENTIFIED BOUNDARY ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND CITY HALL SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE PORTLAND CITY HALL, BUT OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATION. FOR THE FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE, GRANTS PASS, KLAMATH FALLS, MEDFORD, AND ROSEBURG- ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 30 MILES AND LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 52.55 17.15

POWER EQUIPMENT OPERATOR: GROUP 5- ASPHALT, EXTRUSION MACHINE; ASPHALT, ROLLER (ANY ASPHALT MIX); ASPHALT, ROTO-MILL PAVEMENT PROFILER GROUND MAN; BULLDOZER, 20,000 LBS. OR LESS, OR 100 HORSE OR LESS; CEMENT PUMP; CHIP SPREADING MACHINE; CHURN DRILL AND EARTH BORING MACHINE; COMPACTOR,

SELF-PROPELLED WITHOUT BLADE; COMPRESSOR, (ANY POWER) 1,250 CU. FT. AND OVER, TOTAL CAPACITY; CONCRETE, BATCH PLANT QUALITY CONTROL; CONCRETE, COMBINATION MIXER AND COMPRESSOR OPERATOR, GUNITE WORK; CONCRETE, CURB MACHINE, MECHANICAL BERM, CURB AND/OR CURB AND GUTTER; CONCRETE, FINISHING MACHINE; CONCRETE, GROUTING MACHINE; CONCRETE, INTERNAL FULL SLAB VIBRATOR OPERATOR; CONCRETE, JOINT MACHINE; CONCRETE, MIXER SINGLE DRUM, ANDY CAPACITY; CONCRETE, PAVING MACHINE 8' OR LESS; CONCRETE, PLANER; CONCRETE, PUMP; CONCRETE, PUMP TRUCK; CONCRETE, PUMPCRETE OPERATOR (ANY TYPE); CONCRETE, SLIP FORM PUMPS, POWER DRIVEN HYDRAULIC LIFTING DEVICE FOR CONCRETE FORMS; CONVEYORED MATERIAL HANDLER; CRANE, BOOM TRUCK UNDER 20 TONS; CRANE, BOOM TYPE LIFTING DEVICE, 5 TON CAPACITY OR LESS; DRILL, DIRECTIONAL TYPE LESS THAN 20,000 LBS. PULLBACK; FORM LIFT, OVER 10 TON OR ROBOTIC; HELICOPTER HOIST; HOIST OPERATOR, SINGLE DRUM; HYDRAULIC BACKHOE TRACK TYPE UP TO AND INCLUDING 20,000 LBS.; HYDRAUIC BACKHOE WHEEL TYPE (ANY MAKE); LASER SCREED; LOADERS, RUBBER-TIRED TYPE, LESS THAN 25,000 LBS.; PAVEMENT GRINDER AND/OR GROOVING MACHINE (RIDING TYPE); PIPE, CAST IN PLACE PIPE LAYING MACHINE; PULVA-MIXER OR SIMILAR TYPES; PUMP OPERATOR, MORE THAN 5 PUMPS (ANY SIZE); RAIL, BALLAST COMPACTOR, REGULATOR, OR TAMPER MACHINES; SERVICE OILER (GREASER); SWEEPER SELF-PROPELLED; TRACTOR, RUBBER-TIRED, 50 HP FLYWHEEL AND UNDER; TRENCHING MACHINE OPERATOR, MAXIMUM DIGGING CAPACITY 3' DEPTH; TUNNEL, LOCOMOTIVE, DINKEY; TUNNEL, POWER JUMBO SETTING SLIP FORMS, ETC. (CLARK, COWLITX, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES). ZONE DIFFERENTIALS (ADD TO ZONE 1 RATES). ZONE 1: BASE RATE. ZONE 2: $3.00. ZONE 3: $6.00. FOR THE FOLLOWING METROPOLITAN COUNTIES: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED: ALL JOBS OR PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS, AND MARION COUNTIES, WEST OF THE WESTERN OBUNDARY OF MT. HOOD NATIONAL FOREST AND WEST OF MILE POST 30 ON I-84 AND WEST OF MILE POST 30 ON STATE HIGHWAY 26 AND WEST OF MILE POST 30 ON HIGHWAY 22 AND ALL JOBS OR PROJECTS LOCATED IN YAMHILL COUNTY, WASHINGTON COUNTY, AND COLUMBIA COUNTY AND ALL JOBS OR PROJECTS LOCATED IN CLARK & COWLITZ COUNTY IN THE MT. ST. HELENS ""BLAST ZONE"" SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED IN THE AREA OUTSIDE THE IDENTIFIED BOUNDARY ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND CITY HALL SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE PORTLAND CITY HALL, BUT OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE

ZONE III PAY FOR ALL CLASSIFICATION. FOR THE FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE, GRANTS PASS, KLAMATH FALLS, MEDFORD, AND ROSEBURG- ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 30 MILES AND LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 51.31 17.15

POWER EQUIPMENT OPERATOR: GROUP 6- ASPHALT, PUGMILL (ANY TYPES); ASPHALT, RAKER; ASPHALT, TRUCK MOUNTED ASPHALT SPREADER, WITH SCREED; SUGER OILER; BOATMAN; BOBCAT, SKID STEER (LESS THAN 1 YRD); BROOM, SELF-PROPELLED; COMPRESSOR OPERATOR (ANY POWER) UNDER 1,250 CU. FT. TOTAL CAPACITY; CONCRETE CURING MACHINE (RIDING TYPE); CONCRETE SAW; CONVEYOR OPERATOR OR ASSISTANT; CRANE, TUGGER; CRUSHER FEEDERMAN; CRUSHER OILER; DECKHAND; DRILL, DIRECTIONAL LOCATOR; FORK LIFT; GRADE CHECKER; GUARDRAIL PUNCHOILER; HUDROGRAPHIC SEEDER MACHINE, STRAW, PULP OR SEED; HYDROSTATIC PUMP OPERATOR; MIXER BOX (CTB, DRY BATCH, ETC.); OILER; PLANT OILER; PUMP (ANY POWER); RAIL, BRAKEMAN, SWITCHMAN, MOTORMAN; RAIL, TAMPING MACHINE, MECHANICAL, SELF-PROPELLED; RIGGER; ROLLER GRADING (NOT ASPHALT); TRUCK, CRANE OILER-DRIVER. (CLARK, COWLITX, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES). ZONE DIFFERENTIALS (ADD TO ZONE 1 RATES). ZONE 1: BASE RATE. ZONE 2: $3.00. ZONE 3: $6.00. FOR THE FOLLOWING METROPOLITAN COUNTIES: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED: ALL JOBS OR PROJECTS LOCATED IN MULTNOMAH, CLACKAMAS, AND MARION COUNTIES, WEST OF THE WESTERN OBUNDARY OF MT. HOOD NATIONAL FOREST AND WEST OF MILE POST 30 ON I-84 AND WEST OF MILE POST 30 ON STATE HIGHWAY 26 AND WEST OF MILE POST 30 ON HIGHWAY 22 AND ALL JOBS OR PROJECTS LOCATED IN YAMHILL COUNTY, WASHINGTON COUNTY, AND COLUMBIA COUNTY AND ALL JOBS OR PROJECTS LOCATED IN CLARK & COWLITZ COUNTY IN THE MT. ST. HELENS ""BLAST ZONE"" SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED IN THE AREA OUTSIDE THE IDENTIFIED BOUNDARY ABOVE, BUT LESS THAN 50 MILES FROM THE PORTLAND CITY HALL SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE PORTLAND CITY HALL, BUT OUTSIDE THE IDENTIFIED BORDER ABOVE, SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATION. FOR THE FOLLOWING CITIES: ALBANY, BEND , COOS BAY, EUGENE, GRANTS PASS, KLAMATH FALLS, MEDFORD, AND ROSEBURG-

ALL JOBS OR PROJECTS LOCATED WITHIN 30 MILES OF THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE 1 PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 30 MILES AND LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE II PAY FOR ALL CLASSIFICATIONS. ALL JOBS OR PROJECTS LOCATED MORE THAN 50 MILES FROM THE RESPECTIVE CITY HALL OF THE AFOREMENTIONED CITIES SHALL RECEIVE ZONE III PAY FOR ALL CLASSIFICATIONS.....$ 48.09 17.15

IRON0014-005 07/07/2025

	Rates	Fringes
IRONWORKER (ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE, STEVENS, WALLA WALLA, AND WHITMAN COUNTIES).....	$ 43.40	32.77

IRON0029-002 07/07/2025

	Rates	Fringes
IRONWORKER (CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKAIKUM COUNTIES).....	$ 48.31	34.52

IRON0086-002 07/07/2025

	Rates	Fringes
IRONWORKER (YAKIMA, KITTITAS AND CHELAN COUNTIES)...	$ 43.40	32.77

IRON0086-004 07/07/2025

	Rates	Fringes
IRONWORKER (CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOME COUNTIES).	$ 57.94	34.52

LABO0238-004 06/01/2025

	Rates	Fringes
LABORER: GROUP 1, AREA A-1 - FLAGMAN; LANDSCAPE LABORER; SCALEMAN; TRAFFIC CONTROL MAINTENANCE LABORER (TO INCLUDE ERECTION AND MAINTENANCE OF BARRICADES, SIGNS AND RELIEF OF FLAGPERSON); WINDOW WASHER/CLEANER (DETAIL CLEANUP, SUCH AS, BUT NOT LIMITED TO CLEANING FLOORS, CEILINGS, WALLS, WINDOWS, ETC. PRIOR TO FINAL ACCEPTANCE BY THE OWNER) (A-1 AREA: ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, WALLA WALLA, AND WHITMAN COUNTIES).....	$ 34.03	16.90
LABORER: GROUP 2, AREA A-1 - ASBESTOS ABATEMENT WORKER; BRUSH HOG FEEDER; CARPENTER TENDER; CEMENT HANDLER; CLEAN-UP LABORER; CONCRETE CREWMAN (TO INCLUDE STRIPPING OF FORMS, HAND OPERATING JACKS ON SLIP FORM CONSTRUCTION, APPLICATION OF CONCRETE CURING COMPOUNDS, PUMPCRETE MACHINE, SIGNALING,		

HANDLIGN THE NOZZLE OF SQUEEZCRETE OR SIMILAR
MACHINE, 6 INCHES AND SMALLER); CONFINED SPACE
ATTENDANT; CONCRETE SIGNALMAN; CRUSHER FEEDER;
DEMOLITION (TO INCLUDE CLEAN-UP, CURNING, LOADING,
WRECKING AND SALVAGE OF ALL MATERIAL); DUMPMAN;
FENCE ERECTOR; FIREWATCH; FORM CLEANING MACHINE
FEEDER, STACKER, GENERAL LABORER; GROUT MACHINE
HEADER TENDER; GUARD RAIL (TO INCLUDE GUARD RAILS,
GUIDE AND REFERENCE POSTS, SIGN POSTS, AND
RIGHT-OF-WAY MARKERS); HAZARDOUS WASTE WORKER,
LEVEL D (NO RESPIRATOR IS USED AND SKIN PROTECTION
IS MINIMAL); MINER, CLASS ""A"" (TO INCLUDE ALL BULL
GANG, CONCRETE CREWMAN, DUMPAN AND PUMPCRETE
CREWMAN, INCLUDING DISTRIBUTING PIPE, ASSEMBLY &
DISMANTLE, AND NIPPER), NIPPER; RIPRAP MAN;
SANDBLAST TAILHOSEMAN; SCAFFOLD ERECTOR (WOOD OR
STEEL); STAKE JUMPER; STRUCTURAL MOVER (TO INCLUDE
SEPARATING FOUNDATION, PREPARATION, CRIBBING,
SHORING, JACKING AND UNLOADING OF STRUCTURES);
TAILHOSEMAN (WATER NOZZLE); TIMBER BUCKER AND
FALLER (BY HAND); TRACK LABORER (RR); TRUCK LOADER;
WELL-POINT MAN; ALL OTHER WORK CLASSIFICATIONS NOT
SPECIFICALLY LISTED SHALL BE CLASSIFIED AS GENERAL
LABORER. (A-1 AREA: ASOTIN, BENTON, FRANKLIN,
GARFIELD, LINCOLN, SPOKANE, WALLA WALLA, AND
WHITMAN COUNTIES).....$ 37.13 16.90
LABORER: GROUP 3, AREA A-1 - ASPHALT ROLLER,
WALKING; CEMENT FINISHER TENDER; CONCRETE SAW,
WALKING; DEMOLITION TORCH; DOPE POT FIREMEN,
NON-MECHANICAL; DRILLER TENDER (WHEN REQUIRED TO
MOVE AND POSITION MACHINE); FORM SETTER, PAVING;
GRADE CHECKER USING LEVEL; HAZARDOUS WASTE WORKER,
LEVEL C (USES A CHEMICAL ""SPLASH SUIT"" AND AIR
PURIFYING RESPIRATOR); JACKHAMMER OPERATOR; MINER,
CLASS ""B"" (TO INCLUDE BRAKEMAN, FINISHER, VIBRATOR,
FORM SETTER); NOZZLEMAN (TO INCLUDE SQUEEZE AND
FLO-CRETE NOAZZLE); NOZZLEMAN, WATER, AIR OR STEAM;
PAVEMENT BREAKER (UNDER 90 LBS.); PIPELAYER,
CORRUGATED METAL CULVERT; PIPELAYER, MULTI-PLATE;
POT TENDER; POWER BUGGY OPERATOR; POWER TOOL
OPERATOR, GAS, ELECTRIC, PNEUMATIC; RAILROAD
EQUIPMENT, POWER DRIVEN, EXCEPT DUAL MOBILE POWER
SPIKER OR PULLER; RAILROAD POWER SPIKER OR PULLER,
DUAL MOBILE; RODDER AND SPREADER; TAMPER (TO
INCLUDE OPERATION OF BARCO, ESSEX AND SIMILAR
TAMPERS); TRENCHER, SHAWNEE; TUGGER OPERATOR; WAGON
DRILLS; WATER PIPE LINER; WHEELBARROW (POWER
DRIVEN). (A-1 AREA: ASOTIN, BENTON, FRANKLIN,
GARFIELD, LINCOLN, SPOKANE, WALLA WALLA, AND
WHITMAN COUNTIES).....$ 37.46 16.90
LABORER: GROUP 4, AREA A-1 - AIR AND HYDRAULIC
TRACK DRILL; ASPHALT RAKER; BRUSH MACHINE (TO
INCLUDE HORIZONTAL CONSTRUCTION JOINT CLEANUP BRUSH
MACHINE, POWER PROPELLED); CAISSON WORKER, FREE
AIR; CHAIN SAW OPERATOR AND FALLER; CONCRETE STACK
(TO INCLUDE LABORERS WHEN LABORERS WORKING ON FREE

STANDING CONCRETE STACKS FOR SMOKE OR FUME CONTROL ABOVE 40 FEET HIGH); GUNITE (TO INCLUDE OPERATION OF MACHINE AND NOZZLE); HAZARDOUS WASTE WORKER, LEVEL B (USES SAME RESPIRATOR PROTECTION AS LEVEL A. A SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT""); HIGH SCALER; LASER BEAM OPERATOR (TO INLCUDE GRADE CHECKER AND ELEVATION CONTROL); MINER, CLASS C (TO INCLUDE MINER, NOZZLEMAN FOR CONCRETE, LASER BEAM OPERATOR AND RIGGER ON TUNNELS); MONITOR OPERATOR (AIR TRACK OR SIMILAR MOUNTING); MORTAR MIXER; NOZZLEMAN (TO INCLUDE JET BLASTING NOZZLEMAN, OVER 1,200 LBS., JET BLAST MACHINE POWER PROPELLED, SANDBLAST NOZZLE); PAVEMENT BREAKER (90 LBS. AND OVER); PIPELAYER (TO INCLUDE WORKING TOPMAN, CAULKER, COLLARMAN, JOINTER, MORTARMAN, RIGGER, JACKER, SHORER, VALVE OR METER INSTALLER); PIPEWRAPPER; PLASTERER TENDER; VIBRATORS (ALL). (A-1 AREA: ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, WALLA WALLA, AND WHITMAN COUNTIES).....$ 37.80 16.90

LABORER: GROUP 5, AREA A-1 - DRILLS WITH DUAL MASTS: HAZARDOUS WASTE WORKER, LEVEL A (UTILIZES A FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE); MINER CLASS ""D"", TO INCLUDE RAISE AND SHAFT MINER, LASER BEAM OPERATOR ON RAISES AND SHAFTS). (A-1 AREA: ASOTIN, BENTON, FRANKLIN, GARFIELD, LINCOLN, SPOKANE, WALLA WALLA, AND WHITMAN COUNTIES A-2 AREA: ADAMS,COLUMBIA,DOUGLAS (EAST OF 120TH MERIDIAN), FERRY, GRANT, OKANOGAN, PEND OREILLE, AND STEVENS COUNTIES).....$ 38.14 16.90

LABORER: GROUP 1, AREA A-2 - FLAGMAN; LANDSCAPE LABORER; SCALEMAN; TRAFFIC CONTROL MAINTENANCE LABORER (TO INCLUDE ERECTION AND MAINTENANCE OF BARRICADES, SIGNS AND RELIEF OF FLAGPERSON); WINDOW WASHER/CLEANER (DETAIL CLEANUP, SUCH AS, BUT NOT LIMITED TO CLEANING FLOORS, CEILINGS, WALLS, WINDOWS, ETC. PRIOR TO FINAL ACCEPTANCE BY THE OWNER) (A-2 AREA: ADAMS, COLUMBIA, DOUGLAS (EAST OF 120TH MERIDIAN), FERRY, GRANT, OKANOGAN, PEND OREILLE, AND STEVENS COUNTIES).....$ 37.03 16.90

LABORER: GROUP 2, AREA A-2 - ASBESTOS ABATEMENT WORKER; BRUSH HOG FEEDER; CARPENTER TENDER; CEMENT HANDLER; CLEAN-UP LABORER; CONCRETE CREWMAN (TO INCLUDE STRIPPING OF FORMS, HAND OPERATING JACKS ON SLIP FORM CONSTRUCTION, APPLICATION OF CONCRETE CURING COMPOUNDS, PUMPCRETE MACHINE, SIGNALING, HANDLIGN THE NOZZLE OF SQUEEZCRETE OR SIMILAR MACHINE, 6 INCHES AND SMALLER); CONFINED SPACE ATTENDANT; CONCRETE SIGNALMAN; CRUSHER FEEDER; DEMOLITION (TO INCLUDE CLEAN-UP, CURNING, LOADING, WRECKING AND SALVAGE OF ALL MATERIAL); DUMPMAN; FENCE ERECTOR; FIREWATCH; FORM CLEANING MACHINE FEEDER, STACKER, GENERAL LABORER; GROUT MACHINE HEADER TENDER; GUARD RAIL (TO INCLUDE GUARD RAILS, GUIDE AND REFERENCE POSTS, SIGN POSTS, AND

RIGHT-OF-WAY MARKERS); HAZARDOUS WASTE WORKER,
LEVEL D (NO RESPIRATOR IS USED AND SKIN PROTECTION
IS MINIMAL); MINER, CLASS ""A"" (TO INCLUDE ALL BULL
GANG, CONCRETE CREWMAN, DUMPAN AND PUMPCRETE
CREWMAN, INCLUDING DISTRIBUTING PIPE, ASSEMBLY &
DISMANTLE, AND NIPPER), NIPPER; RIPRAP MAN;
SANDBLAST TAILHOSEMAN; SCAFFOLD ERECTOR (WOOD OR
STEEL); STAKE JUMPER; STRUCTURAL MOVER (TO INCLUDE
SEPARATING FOUNDATION, PREPARATION, CRIBBING,
SHORING, JACKING AND UNLOADING OF STRUCTURES);
TAILHOSEMAN (WATER NOZZLE); TIMBER BUCKER AND
FALLER (BY HAND); TRACK LABORER (RR); TRUCK LOADER;
WELL-POINT MAN; ALL OTHER WORK CLASSIFICATIONS NOT
SPECIFICALLY LISTED SHALL BE CLASSIFIED AS GENERAL
LABORER.(A-2 AREA: ADAMS,COLUMBIA,DOUGLAS (EAST OF
120TH MERIDIAN), FERRY, GRANT, OKANOGAN, PEND
OREILLE, AND STEVENS COUNTIES).....$ 40.13 16.90
LABORER: GROUP 3, AREA A-2 - ASPHALT ROLLER,
WALKING; CEMENT FINISHER TENDER; CONCRETE SAW,
WALKING; DEMOLITION TORCH; DOPE POT FIREMEN,
NON-MECHANICAL; DRILLER TENDER (WHEN REQUIRED TO
MOVE AND POSITION MACHINE); FORM SETTER, PAVING;
GRADE CHECKER USING LEVEL; HAZARDOUS WASTE WORKER,
LEVEL C (USES A CHEMICAL ""SPLASH SUIT"" AND AIR
PURIFYING RESPIRATOR); JACKHAMMER OPERATOR; MINER,
CLASS ""B"" (TO INCLUDE BRAKEMAN, FINISHER, VIBRATOR,
FORM SETTER); NOZZLEMAN (TO INCLUDE SQUEEZE AND
FLO-CRETE NOAZZLE); NOZZLEMAN, WATER, AIR OR STEAM;
PAVEMENT BREAKER (UNDER 90 LBS.); PIPELAYER,
CORRUGATED METAL CULVERT; PIPELAYER, MULTI-PLATE;
POT TENDER; POWER BUGGY OPERATOR; POWER TOOL
OPERATOR, GAS, ELECTRIC, PNEUMATIC; RAILROAD
EQUIPMENT, POWER DRIVEN, EXCEPT DUAL MOBILE POWER
SPIKER OR PULLER; RAILROAD POWER SPIKER OR PULLER,
DUAL MOBILE; RODDER AND SPREADER; TAMPER (TO
INCLUDE OPERATION OF BARCO, ESSEX AND SIMILAR
TAMPERS); TRENCHER, SHAWNEE; TUGGER OPERATOR; WAGON
DRILLS; WATER PIPE LINER; WHEELBARROW (POWER
DRIVEN).(A-2 AREA: ADAMS,COLUMBIA,DOUGLAS (EAST OF
120TH MERIDIAN), FERRY, GRANT, OKANOGAN, PEND
OREILLE, AND STEVENS COUNTIES).....$ 40.46 16.90
LABORER: GROUP 4, AREA A-2 - AIR AND HYDRAULIC
TRACK DRILL; ASPHALT RAKER; BRUSH MACHINE (TO
INCLUDE HORIZONTAL CONSTRUCTION JOINT CLEANUP BRUSH
MACHINE, POWER PROPELLED); CAISSON WORKER, FREE
AIR; CHAIN SAW OPERATOR AND FALLER; CONCRETE STACK
(TO INCLUDE LABORERS WHEN LABORERS WORKING ON FREE
STANDING CONCRETE STACKS FOR SMOKE OR FUME CONTROL
ABOVE 40 FEET HIGH); GUNITE (TO INCLUDE OPERATION
OF MACHINE AND NOZZLE); HAZARDOUS WASTE WORKER,
LEVEL B (USES SAME RESPIRATOR PROTECTION AS LEVEL
A. A SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION
WITH A CHEMICAL ""SPLASH SUIT""); HIGH SCALER; LASER
BEAM OPERATOR (TO INLCUDE GRADE CHECKER AND
ELEVATION CONTROL); MINER, CLASS C (TO INCLUDE
MINER, NOZZLEMAN FOR CONCRETE, LASER BEAM OPERATOR

AND RIGGER ON TUNNELS); MONITOR OPERATOR (AIR TRACK
OR SIMILAR MOUNTING); MORTAR MIXER; NOZZLEMAN (TO
INCLUDE JET BLASTING NOZZLEMAN, OVER 1,200 LBS.,
JET BLAST MACHINE POWER PROPELLED, SANDBLAST
NOZZLE); PAVEMENT BREAKER (90 LBS. AND OVER);
PIPELAYER (TO INCLUDE WORKING TOPMAN, CAULKER,
COLLARMAN, JOINTER, MORTARMAN, RIGGER, JACKER,
SHORER, VALVE OR METER INSTALLER); PIPEWRAPPER;
PLASTERER TENDER; VIBRATORS (ALL). (A-2 AREA:
ADAMS,COLUMBIA,DOUGLAS (EAST OF 120TH MERIDIAN),
FERRY, GRANT, OKANOGAN, PEND OREILLE, AND STEVENS
COUNTIES).....$ 40.80 16.90
LABORER: GROUP 5, AREA A-2 - DRILLS WITH DUAL
MASTS: HAZARDOUS WASTE WORKER, LEVEL A (UTILIZES A
FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED
BREATHING APPARATUS OR A SUPPLIED AIR LINE); MINER
CLASS ""D"", TO INCLUDE RAISE AND SHAFT MINER, LASER
BEAM OPERATOR ON RAISES AND SHAFTS). (A-2 AREA:
ADAMS,COLUMBIA,DOUGLAS (EAST OF 120TH MERIDIAN),
FERRY, GRANT, OKANOGAN, PEND OREILLE, AND STEVENS
COUNTIES).....$ 41.14 16.90

LABO0238-006 06/01/2025

	Rates	Fringes
HOD CARRIER (COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA, WHITMAN)	$ 38.05	16.75

LABO0242-003 06/01/2025

	Rates	Fringes
LABORER: ZONE 1: GROUP 1- LANDSCAPING AND PLANTING; WATCHMAN; WINDOW WASHER/CLEANER (DETAIL CLEAN-UP, SUCH AS BUT NOT LIMITED TO CLEANING FLOORS, CEILINGS, WALLS, WINDOWS, ETC., PRIOR TO FINAL ACCEPTANCE BY THE OWNER) (KING COUNTY) BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30. BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25	$ 36.07	15.79

LABORER: ZONE 1: GROUP 2A- BATCH WEIGHMAN; CRUSHER FEEDER; FENCE LABORER; FLAGMAN; PILOT CAR
(KING COUNTY)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30. BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 40.88 16.72

LABORER: ZONE 1: GROUP 3- GENERAL LABORER; AIR, GAS, OR ELECTRIC VIBRATING SCREED; ASBESTOS ABATEMENT LABORER; BALLAST REGULATOR MACHINE; BRUSH CUTTER; BRUSH HOG FEEDER; BURNER; CARPENTER TENDER; CEMENT FINISHER TENDER; CHANGE HOUSE OR DRY SHACK; CHIPPING GUN (UNDER 30 LBS.); CHOKER SETTER; CHUCK TENDER; CLEAN-UP LABORER; CONCRETE FORM STRIPPER; CURING LABORER; DEMOLITION (WRECKING AND MOVING INCLUDING CHARRED MATERIAL); DITCH DIGGER; DUMP PERSON; FINE GRADERS; FIREWATCH; FORM SETTER; GABIAN BASKET BUILDERS; GROUT MACHINE TENDER; GRINDERS; GUARDRAIL ERECTOR; HAZARDOUS WASTE WORKER (LEVEL C: USES A CHEMICAL ""SPLASH SUIT"" AND AIR PURIFYING RESPIRATOR); MAINTENANCE PERSON; MATERIAL YARD PERSON; POT TENDER; RIP RAP PERSON; RIGGERS; SCALE PERSON; SLOPER SPRAYER; SIGNAL PERSON; STOCK PILER; STAKE HOPPER; TOOLROOM MAN (AT JOB SITE); TOPPER-TAILER; TRACK LABORER; TRUCK SPOTTER; VINYL SEAMER
(KING COUNTY)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 50.38 16.96

LABORER: ZONE 1: GROUP 4- CEMENT DUMPER-PAVING; CHIPPING GUN (OVER 30 LBS.); CLARY POWER SPREADER; CONCRETE DUMPER/CHUTE OPERATOR; CONCRETE SAW OPERATOR; DRILL OPERATOR (HYDRAULIC, DIAMOND, AIARTRAC); FALLER AND BUCKER CHAIN SAW; GRADE CHECKER AND TRANSIT PERSON; GROUTMEN (PRESSURE) INCLUDING POST TENSION BEAMS; HAZARDOUS WASTE WORKER (LEVEL B: USES SAME RESPIRATOR PROTECTION AS LEVEL A. A SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT""); HIGH SCALER; JACKHAMMER; LASERBEAM OPERATOR; MANHOLE BUILDER-MUDMAN; NOZZLEMAN (CONCRETE PUMP, GREEN CUTTER WHEN USING COMBINATION OF HIGH PRESSURE AIR AND WATER ON CONCRETE AND ROCK, SANDBLAST, GUNITE, SHOTCRETE, WATER BLASTER, VACUUM BLASTER); PAVEMENT BREAKER; PIPE LAYER AND CAULKER; PIPE POT TENDER; PIPE RELINER (NOT INSERT TYPE); PIPE WRAPPER; POWER JACKS; RAILROAD SPIKE PULLER-POWER; RAKER-ASPHALT; RIVET BUSTER; RODDER; SLOPER (OVER 20 FT); SPREADER (CONCRETE); TAMPER AND SIMILAR ELECTRIC, AIR AND GLAS OPERATED TOOL; TIMBER PERSON-SEWER (LAGGER SHORER AND CRIBBER); TRACK LINER POWER; TUGGER OPERATOR; VIBRATOR; WELL POINT LABORER
(KING COUNTY)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.$ 51.52 16.99
LABORER: ZONE 1: GROUP 5- CAISSON WORKER; MORTARMAN AND HODCARRIER; POWDERMAN; RE-TIMBERMAN; HAZARDOUS WASTE WORKER (LEVEL A: UTILIZES A FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE).
(KING COUNTY)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN

25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 52.31 17.01
LABORER: ZONE 1: GROUP 6- MINER
(KING COUNTY)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 53.99 17.05

LABO0252-010 06/01/2025

	Rates	Fringes
LABORER: ZONE 1: GROUP 1 LANDSCAPING AND PLANTING; WATCHMAN; WINDOW WASHER/CLEANER (DETAIL CLEAN-UP, SUCH AS BUT NOT LIMITED TO CLEANING FLOORS, CEILINGS, WALLS, WINDOWS, ETC., PRIOR TO FINAL ACCEPTANCE BY THE OWNER) (CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES) BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....	$ 36.07	15.79
LABORER: ZONE 1: GROUP 2 BATCH WEIGHMAN; CRUSHER FEEDER; FENCE LABORER; FLAGMAN; PILOT CAR (CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES) BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND		

BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 40.88 16.72
LABORER: ZONE 1: GROUP 3 GENERAL LABORER; AIR, GAS, OR ELECTRIC VIBRATING SCREED; ASBESTOS ABATEMENT LABORER; BALLAST REGULATOR MACHINE; BRUSH CUTTER; BRUSH HOG FEEDER; BURNER; CARPENTER TENDER; CEMENT FINISHER TENDER; CHANGE HOUSE OR DRY SHACK; CHIPPING GUN (UNDER 30 LBS.); CHOKER SETTER; CHUCK TENDER; CLEAN-UP LABORER; CONCRETE FORM STRIPPER; CURING LABORER; DEMOLITION (WRECKING AND MOVING INCLUDING CHARRED MATERIAL); DITCH DIGGER; DUMP PERSON; FINE GRADERS; FIREWATCH; FORM SETTER; GABIAN BASKET BUILDERS; GROUT MACHINE TENDER; GRINDERS; GUARDRAIL ERECTOR; HAZARDOUS WASTE WORKER (LEVEL C: USES A CHEMICAL ""SPLASH SUIT"" AND AIR PURIFYING RESPIRATOR); MAINTENANCE PERSON; MATERIAL YARD PERSON; POT TENDER; RIP RAP PERSON; RIGGERS; SCALE PERSON; SLOPER SPRAYER; SIGNAL PERSON; STOCK PILER; STAKE HOPPER; TOOLROOM MAN (AT JOB SITE); TOPPER-TAILER; TRACK LABORER; TRUCK SPOTTER; VINYL SEAMER
(CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 50.38 16.96
LABORER: ZONE 1: GROUP 4 CEMENT DUMPER-PAVING; CHIPPING GUN (OVER 30 LBS.); CLARY POWER SPREADER; CONCRETE DUMPER/CHUTE OPERATOR; CONCRETE SAW OPERATOR; DRILL OPERATOR (HYDRAULIC, DIAMOND, AIARTRAC); FALLER AND BUCKER CHAIN SAW; GROUTMEN (PRESSURE) INCLUDING POST TENSION BEAMS; HAZARDOUS WASTE WORKER (LEVEL B: USES SAME RESPIRATOR

PROTECTION AS LEVEL A. A SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT""); JACKHAMMER; LASERBEAM OPERATOR; MANHOLE BUILDER-MUDMAN; NOZZLEMAN (CONCRETE PUMP, GREEN CUTTER WHEN USING COMBINATION OF HIGH PRESSURE AIR AND WATER ON CONCRETE AND ROCK, SANDBLAST, GUNITE, SHOTCRETE, WATER BLASTER, VACUUM BLASTER); PAVEMENT BREAKER; PIPE LAYER AND CAULKER; PIPE POT TENDER; PIPE RELINER (NOT INSERT TYPE); PIPE WRAPPER; POWER JACKS; RAILROAD SPIKE PULLER-POWER; RAKER-ASPHALT; RIVET BUSTER; RODDER; SLOPER (OVER 20 FT); SPREADER (CONCRETE); TAMPER AND SIMILAR ELECTRIC, AIR AND GLAS OPERATED TOOL; TIMBER PERSON-SEWER (LAGGER SHORER AND CRIBBER); TRACK LINER POWER; TUGGER OPERATOR; VIBRATOR; WELL POINT LABORER
(CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 51.52 16.99
LABORER: ZONE 1: GROUP 5 CAISSON WORKER; MINER; MORTARMAN AND HODCARRIER; GRADE CHECKER AND TRANSIT PERSON; HIGH SCALER; POWDERMAN; RE-TIMBERMAN; HAZARDOUS WASTE WORKER (LEVEL A: UTILIZES A FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE).
(CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1

RATES): ZONE 2 - $2.25.....$ 52.31 17.01

LABO0292-008 06/01/2025

	Rates	Fringes
LABORER: ZONE 1: GROUP 1 LANDSCAPING AND PLANTING; WATCHMAN; WINDOW WASHER/CLEANER (DETAIL CLEAN-UP, SUCH AS BUT NOT LIMITED TO CLEANING FLOORS, CEILINGS, WALLS, WINDOWS, ETC., PRIOR TO FINAL ACCEPTANCE BY THE OWNER) (ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES) BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....	$ 36.07	15.79
LABORER: ZONE 1: GROUP 2 BATCH WEIGHMAN; CRUSHER FEEDER; FENCE LABORER; FLAGMAN; PILOT CAR (ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES) BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.	$ 40.88	16.72
LABORER: ZONE 1: GROUP 3 GENERAL LABORER; AIR, GAS, OR ELECTRIC VIBRATING SCREED; ASBESTOS ABATEMENT LABORER; BALLAST REGULATOR MACHINE; BRUSH CUTTER; BRUSH HOG FEEDER; BURNER; CARPENTER TENDER; CEMENT FINISHER TENDER; CHANGE HOUSE OR DRY SHACK; CHIPPING GUN (UNDER 30 LBS.); CHOKER SETTER; CHUCK TENDER; CLEAN-UP LABORER; CONCRETE FORM STRIPPER; CURING LABORER; DEMOLITION (WRECKING AND MOVING INCLUDING CHARRED MATERIAL); DITCH DIGGER; DUMP PERSON; FINE GRADERS; FIREWATCH; FORM SETTER;		

GABIAN BASKET BUILDERS; GROUT MACHINE TENDER; GRINDERS; GUARDRAIL ERECTOR; HAZARDOUS WASTE WORKER (LEVEL C: USES A CHEMICAL ""SPLASH SUIT"" AND AIR PURIFYING RESPIRATOR); MAINTENANCE PERSON; MATERIAL YARD PERSON; POT TENDER; RIP RAP PERSON; RIGGERS; SCALE PERSON; SLOPER SPRAYER; SIGNAL PERSON; STOCK PILER; STAKE HOPPER; TOOLROOM MAN (AT JOB SITE); TOPPER-TAILER; TRACK LABORER; TRUCK SPOTTER; VINYL SEAMER

(ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES)

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 50.38 16.96

LABORER: ZONE 1: GROUP 4 CEMENT DUMPER-PAVING; CHIPPING GUN (OVER 30 LBS.); CLARY POWER SPREADER; CONCRETE DUMPER/CHUTE OPERATOR; CONCRETE SAW OPERATOR; DRILL OPERATOR (HYDRAULIC, DIAMOND, AIARTRAC); FALLER AND BUCKER CHAIN SAW; GRADE CHECKER AND TRANSIT PERSON; GROUTMEN (PRESSURE) INCLUDING POST TENSION BEAMS; HAZARDOUS WASTE WORKER (LEVEL B: USES SAME RESPIRATOR PROTECTION AS LEVEL A. A SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT""); HIGH SCALER; JACKHAMMER; LASERBEAM OPERATOR; MANHOLE BUILDER-MUDMAN; NOZZLEMAN (CONCRETE PUMP, GREEN CUTTER WHEN USING COMBINATION OF HIGH PRESSURE AIR AND WATER ON CONCRETE AND ROCK, SANDBLAST, GUNITE, SHOTCRETE, WATER BLASTER, VACUUM BLASTER); PAVEMENT BREAKER; PIPE LAYER AND CAULKER; PIPE POT TENDER; PIPE RELINER (NOT INSERT TYPE); PIPE WRAPPER; POWER JACKS; RAILROAD SPIKE PULLER-POWER; RAKER-ASPHALT; RIVET BUSTER; RODDER; SLOPER (OVER 20 FT); SPREADER (CONCRETE); TAMPER AND SIMILAR ELECTRIC, AIR AND GLAS OPERATED TOOL; TIMBER PERSON-SEWER (LAGGER SHORER AND CRIBBER); TRACK LINER POWER; TUGGER OPERATOR; VIBRATOR; WELL POINT LABORER

(ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES)

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE

CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.$ 51.52 16.99

LABORER: ZONE 1: GROUP 5 CAISSON WORKER; MINER; MORTARMAN AND HODCARRIER; POWDERMAN; RE-TIMBERMAN; HAZARDOUS WASTE WORKER (LEVEL A: UTILIZES A FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE).

(ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES)

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30 BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 52.31 17.01

LABO0335-022 06/01/2025

	Rates	Fringes
LABORER: GROUP 1 LANDSCAPING, AND/OR PLANTING LABORERS (CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES).....	$ 32.67	15.60
LABORER: GROUP 2 FENCE BUILDERS AND TRAFFIC FLAGGERS (CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES).....	$ 40.56	15.60

LABORER: GROUP 3 ASPHALT PLANT LABORERS; ASPHALT SPREADERS; BATCH WEIGHMAN; BROOMERS; BRUSH BURNERS AND CUTTERS; CAR AND TRUCK LOADERS; CARPENTER TENDER; CHANGE-HOUSE MAN OR DRY SHACK MAN; CHOKER SETTER; CLEAN-UP LABORERS; CURING, CONCRETE; DEMOLITION, WRECKING AND MOVING LABORERS; DUMPERS, ROAD OILING CREW; DUMPMEN (FOR GRADING CREW);

ELEVATOR FEEDERS; MEDIAN RAIL REFERENCE POST, GUIDE POST, RIGHT OF WAY MARKER; FINE GRADERS; FIRE WATCH; FORM STRIPPERS (NOT SWINGING STAGES); GENERAL LABORERS; HAZARDOUS WASTE WORKER; HOD CARRIER; LEVERMAN OR AGGREGATE SPREADER (FLAHERTY AND SIMILAR TYPES); LOADING SPOTTERS; MATERIAL YARD MAN (INCLUDING ELECTRICAL); PITTSBURGH CHIPPER OPERATOR OR SIMILAR TYPES; RAILROAD TRACK LABORERS; RIBBON SETTERS (INCLUDING STEEL FORMS); RIP RAP MAN (HAND PLACED); ROAD PUMP TENDER; SEWER LABOR; SIGNALMAN; SKIPMAN; SLOPERS; SPRAYMEN; STAKE CHASER; STOCKPILER; TIE BACK SHORING; TIMBER FALLER AND BUCKER (HAND LABOR); TOOLROOM MAN (AT JOB SITE); TUNNEL BULLGANG (ABOVE GROUND); WEIGHT-MAN-CRUSHER (AGGREGATE WHEN USED)

(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES)....$ 44.06 15.60

LABORER: GROUP 4 APPLICATOR (INCLUDING POT POWER TENDER FOR SAME), APPLYING PROTECTIVE MATERIAL BY HAND OR NOZZLE ON UTILITY LINES OR STORAGE TANKS ON PROJECT; BRUSH CUTTERS (POWER SAW); BURNERS; CHOKER SPLICER; CLARY POWER SPREADER AND SIMILAR TYPES; CLEAN- UP NOZZLEMAN-GREEN CUTTER (CONCRETE, ROCK, ETC.); CONCRETE POWER BUGGYMAN; CONCRETE LABORER; CRUSHER FEEDER; DEMOLITION AND WRECKING CHARRED MATERIALS; GUNITE NOZZLEMAN TENDER; GUNITE OR SAND BLASTING POT TENDER; HANDLERS OR MIXERS OF ALL MATERIALS OF AN IRRITATING NATURE (INCLUDING CEMENT AND LIME); TOOL OPERATORS (INCLUDES BUT NOT LIMITED TO: DRY PACK MACHINE; JACKHAMMER; CHIPPING GUNS; PAVING BREAKERS); PIPE DOPING AND WRAPPING; POST HOLE DIGGER, AIR, GAS OR ELECTRIC; VIBRATING SCREED; TAMPERS; SAND BLASTING (WET); STAKE-SETTER; TUNNEL-MUCKERS, BRAKEMEN, CONCRETE CREW, BULLGANG (UNDERGROUND)

(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES)....$ 44.90 15.60

LABORER: GROUP 5 ASBESTOS REMOVAL; BIT GRINDER; DRILL DOCTOR; DRILL OPERATORS, AIR TRACKS, CAT DRILLS, WAGON DRILLS, RUBBER-MOUNTED DRILLS, AND OTHER SIMILAR TYPES INCLUDING AT CRUSHER PLANTS; GUNITE NOZZLEMAN; HIGH SCALERS, STRIPPERS AND DRILLERS (COVERS WORK IN SWINGING STAGES, CHAIRS OR BELTS, UNDER EXTREME CONDITIONS UNUSUAL TO NORMAL DRILLING, BLASTING, BARRING-DOWN, OR SLOPING AND STRIPPING); MANHOLE BUILDER; POWDERMEN; CONCRETE SAW OPERATOR; PWDERMEN; POWER SAW OPERATORS (BUCKING AND FALLING); PUMPCRETE NOZZLEMEN; SAND BLASTING (DRY); SEWER TIMBERMAN; TRACK LINERS, ANCHOR MACHINES, BALLAST REGULATORS, MULTIPLE TAMPERS, POWER JACKS, TUGGER OPERATOR; TUNNEL-CHUCK TENDERS, NIPPERS AND TIMBERMEN; VIBRATOR; WATER

BLASTER
(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES).....$ 45.54 15.60
LABORER: GROUP 6 ASPHALT RAKER; CONCRETE SAW OPERATOR (WALLS); CONCRETE NOZZELMAN; GRADE CHECKER; PIPELAYER; LASER BEAM (PIPELAYING)-APPLICABLE WHEN EMPLOYEE ASSIGNED TO MOVE, SET UP, ALIGN; LASER BEAM; TUNNEL MINERS; MOTORMAN-DINKY LOCOMOTIVE-TUNNEL; POWDERMAN-TUNNEL; SHIELD OPERATOR-TUNNEL
(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES).....$ 46.08 15.60

LABO0348-003 06/01/2025

	Rates	Fringes
LABORER: ZONE 1: GROUP 1 LANDSCAPING AND PLANTING; WATCHMAN; WINDOW WASHER/CLEANER (DETAIL CLEAN-UP, SUCH AS BUT NOT LIMITED TO CLEANING FLOORS, CEILINGS, WALLS, WINDOWS, ETC., PRIOR TO FINAL ACCEPTANCE BY THE OWNER) (CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES) BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30. BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....	$ 31.19	16.48
LABORER: ZONE 1: GROUP 2 BATCH WEIGHMAN; CRUSHER FEEDER; FENCE LABORER; FLAGMAN; PILOT CAR (CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES) BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE		

CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30. BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.$ 35.34 16.59

LABORER: ZONE 1: GROUP 3 GENERAL LABORER; AIR, GAS, OR ELECTRIC VIBRATING SCREED; ASBESTOS ABATEMENT LABORER; BALLAST REGULATOR MACHINE; BRUSH CUTTER; BRUSH HOG FEEDER; BURNER; CARPENTER TENDER; CEMENT FINISHER TENDER; CHANGE HOUSE OR DRY SHACK; CHIPPING GUN (UNDER 30 LBS.); CHOKER SETTER; CHUCK TENDER; CLEAN-UP LABORER; CONCRETE FORM STRIPPER; CURING LABORER; DEMOLITION (WRECKING AND MOVING INCLUDING CHARRED MATERIAL); DITCH DIGGER; DUMP PERSON; FINE GRADERS; FIREWATCH; FORM SETTER; GABIAN BASKET BUILDERS; GROUT MACHINE TENDER; GRINDERS; GUARDRAIL ERECTOR; HAZARDOUS WASTE WORKER (LEVEL C: USES A CHEMICAL ""SPLASH SUIT"" AND AIR PURIFYING RESPIRATOR); MAINTENANCE PERSON; MATERIAL YARD PERSON; POT TENDER; RIP RAP PERSON; RIGGERS; SCALE PERSON; SLOPER SPRAYER; SIGNAL PERSON; STOCK PILER; STAKE HOPPER; TOOLROOM MAN (AT JOB SITE); TOPPER-TAILER; TRACK LABORER; TRUCK SPOTTER; VINYL SEAMER

(CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES)

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30. BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 38.40 16.66

LABORER: ZONE 1: GROUP 4 CEMENT DUMPER-PAVING; CHIPPING GUN (OVER 30 LBS.); CLARY POWER SPREADER; CONCRETE DUMPER/CHUTE OPERATOR; CONCRETE SAW OPERATOR; DRILL OPERATOR (HYDRAULIC, DIAMOND, AIARTRAC); FALLER AND BUCKER CHAIN SAW; GRADE CHECKER AND TRANSIT PERSON; GROUTMEN (PRESSURE) INCLUDING POST TENSION BEAMS; HAZARDOUS WASTE WORKER (LEVEL B: USES SAME RESPIRATOR PROTECTION AS LEVEL A. A SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT""); HIGH SCALER; JACKHAMMER; LASERBEAM OPERATOR; MANHOLE BUILDER-MUDMAN; NOZZLEMAN (CONCRETE PUMP, GREEN

CUTTER WHEN USING COMBINATION OF HIGH PRESSURE AIR AND WATER ON CONCRETE AND ROCK, SANDBLAST, GUNITE, SHOTCRETE, WATER BLASTER, VACUUM BLASTER); PAVEMENT BREAKER; PIPE LAYER AND CAULKER; PIPE POT TENDER; PIPE RELINER (NOT INSERT TYPE); PIPE WRAPPER; POWER JACKS; RAILROAD SPIKE PULLER-POWER; RAKER-ASPHALT; RIVET BUSTER; RODDER; SLOPER (OVER 20 FT); SPREADER (CONCRETE); TAMPER AND SIMILAR ELECTRIC, AIR AND GLAS OPERATED TOOL; TIMBER PERSON-SEWER (LAGGER SHORER AND CRIBBER); TRACK LINER POWER; TUGGER OPERATOR; VIBRATOR; WELL POINT LABORER
(CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30. BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 39.26 16.68

LABORER: ZONE 1: GROUP 5 CAISSON WORKER; MINER; MORTARMAN AND HODCARRIER; POWDERMAN; RE-TIMBERMAN; HAZARDOUS WASTE WORKER (LEVEL A: UTILIZES A FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE).
(CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES)
BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 BUT LESS THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE 3 - MORE THAN 45 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $1.00 ZONE 3 - $1.30. BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA ZONE 1 - PROJECTS WITHIN 25 RADIUS MILES OF THE RESPECTIVE CITY HALL ZONE 2 - MORE THAN 25 RADIUS MILES FROM THE RESPECTIVE CITY HALL ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES): ZONE 2 - $2.25.....$ 39.89 16.70

PAIN0005-002 07/01/2025

	Rates	Fringes
PAINTERS: STRIPERS (STATEWIDE EXCEPT CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES)	$ 41.80	20.85

PAIN0010-012 07/01/2025

	Rates	Fringes
PAINTER: BRUSH, ROLLER, SPRAY & SANDBLASTING (CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES)	$ 39.94	16.68

PAIN0010-013 07/01/2025

	Rates	Fringes
PAINTERS: HIGHWAY & PARKING LOT STRIPER (CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA AND WAHKIAKUM COUNTIES)	$ 41.19	17.09

PAIN0300-007 07/01/2025

	Rates	Fringes
PAINTER (CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES)	$ 41.24	14.70

PAIN0427-005 07/01/2025

	Rates	Fringes
PAINTER (APPLICATION OF COLD TAR PRODUCTS, EPOXIES, POLYURETHANES, ACIDS, RADIATION RESISTANT MATERIAL, WATER, SANDBLASTING, OVER 30'/SWING STAGE WORK, BRUSH, ROLLER, STRIPING, STEAM-CLEANING, AND SPRAY). (ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE); CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES)	$ 36.26	17.01

PLAS0072-004 06/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES) ZONE DIFFERENTIAL (ADD TO ZONE 1 RATE): ZONE 1- BASE RATE. ZONE 2 - $3.00 BASE POINTS: SPOKANE, PASCO, LEWISTON; WENATCHEE ZONE 1: 0 - 45 RADIUS MILES FROM THE MAIN POST OFFICE ZONE 2: OVER 45 RADIUS MILES FROM THE MAIN POST OFFICE	$ 40.89	18.64

PLAS0528-001 06/01/2024

	Rates	Fringes
CEMENT MASON: CEMENT MASON (CLALUM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, WAHKIAKUM, AND WHATCOM COUNTIES)	$ 54.16	21.27
CEMENT MASON:COMPOSITION, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE (CLALUM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, WAHKIAKUM, AND WHATCOM COUNTIES)	$ 54.66	21.27
CEMENT MASON: TROWELING MACHINE OPERATOR ON COMPOSITION (CLALUM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, WAHKIAKUM, AND WHATCOM COUNTIES)	$ 54.66	21.27

PLAS0555-002 06/01/2025

	Rates	Fringes
CEMENT MASON: CEMENT MASONS (CLARK, KLICKITAT AND SKAMANIA COUNTIES) ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - 1.15 ZONE 4 - 1.70 ZONE 5 - 3.00 BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE DALLES, VANCOUVER ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL	$ 46.13	20.31
CEMENT MASON: CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD (CLARK, KLICKITAT AND SKAMANIA COUNTIES) ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - 1.15 ZONE 4 - 1.70 ZONE 5 - 3.00 BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE DALLES, VANCOUVER ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL	$ 48.05	20.31
CEMENT MASON: CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD (CLARK, KLICKITAT AND SKAMANIA COUNTIES) ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - 1.15 ZONE 4 - 1.70 ZONE 5 - 3.00 BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE		

DALLES, VANCOUVER ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL....$ 47.09 20.31

CEMENT MASON: COMPOSITION WORKERS AND POWER MACHINERY OPERATORS (CLARK, KLICKITAT AND SKAMANIA COUNTIES) ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - 1.15 ZONE 4 - 1.70 ZONE 5 - 3.00 BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE DALLES, VANCOUVER ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL.....$ 47.09 20.31

TEAM0037-002 06/01/2024

	Rates	Fringes
TRUCK DRIVER: GROUP 1- A FRAME OR HYDRA LIFRT TRUCK W/LOAD BEARING SURFACE; ARTICULATED DUMP TRUCK; BATTERY REBUILDERS; BUS OR MANHAUL DRIVER; CONCRETE BUGGIES (POWER OPERATED); CONCRETE PUMP TRUCK; DUMP TRUCKS, SIDE, END AND BOTTOM DUMPS, INCLUDING SEMI TRUCKS AND TRAINS OR COMBINATIONS THERE OF: UP TO AND INCLUDING 10 CU. YDS.; LIFT JITNEYS, FORK LIFTS (ALL SIZES IN LOADING, UNLOADING AND TRANSPORTING MATERIAL ON JOB SITE); LOADER AND/OR LEVERMAN ON CONCRETE DRY BATCH PLANT (MANUALLY OPERATED); PILOT CAR; PICKUP TRUCK; SOLO FLAT BED AND MISC. BODY TRUCKS, 0-10 TONS; TRUCK TENDER; TRUCK MECHANIC TENDER; WATER WAGONS (RATED CAPACITY) UP TO 3,000 GALLONS; TRANSIT MIX AND WET OR DRY MIX - 5 CU. YDS. AND UNDER; LUBRICATION MAN, FUEL TRUCK DRIVER, TIREMAN, WASH RACK, STEAM CLEANER OR COMBINATIONS; TEAM DRIVER; SLURRY TRUCK DRIVER OR LEVERMAN; TIREMAN		

(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA, AND WAHKIAKUM COUNTIES)

ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - $1.15 ZONE 4 - $1.70 ZONE 5 - $2.75. BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER. ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL. ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE

CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL.....$ 33.09 17.63

TRUCK DRIVER: GROUP 2- BOOM TRUCK/HYDRA-LIFT OR RETRACTING CRANE; CHALLENGER; DUMPSTERS OR SIMILAR EQUIPMENT ALL SIZES; DUMP TRUCKS/ARTICULATED DUMPS 6 CU TO 10 CU.; FLAHERTY SPREADER DRIVER OR LEVERMAN; LOWBED EQUIPMENT, FLAT BED SEMI-TRAILER OR DOUBLES TRANSPORTING EQUIPMENT OR WET OR DRY MATERIALS; LUMBER CARRIER, DRIVER-STRADDLE CARRIER (USED IN LOADING, UNLOADING AND TRANSPORTING OF MATERIALS ON JOB SITE); OIL DISTRIBUTOR DRIVER OR LEVERMAN; TRANSIT MIX AND WET OR DRY MIX TRCUKS: OVER 5 CU. YDS. AND INCLUDING 7 CU. YDS.; VACUUM TRUCKS; WATER TRUCK/WAGONS (RATED CAPACITY) OVER 3,000 TO 5,000 GALLONS

(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA, AND WAHKIAKUM COUNTIES)

ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - $1.15 ZONE 4 - $1.70 ZONE 5 - $2.75. BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER. ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL. ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL....$ 33.24 17.63

TRUCK DRIVER: GROUP 3- AMMONIA NITRATE DISTRIBUTOR DRIVER; DUMP TRUCKS, SIDE, END AND BOTTOM DUMPS, INCLUDING SEMI TRUCKS AND TRAINS OR COMBINATIONS THEREOF: OVER 10 CU. YDS. AND INCLUDING 30 CU. YDS. INCLUDES ARTICULATED DUMP TRUCKS; SELF-PROPELLED STREET SWEEPER; TRANSIT MIX AND WET OR DRY MIX TRUCK: OVER 7 CU YDS. AND INCLUDING 11 CU YDS.; TRUCK MECHANIC-WELDER-BODY REPAIRMAN; UTILITY AND CLEAN-UP TRUCK; WATER WAGONS (RATED CAPACITY) OVER 5,000 TO 10,000 GALLONS

(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA, AND WAHKIAKUM COUNTIES)

ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - $1.15 ZONE 4 - $1.70 ZONE 5 - $2.75. BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER. ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL. ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS

THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL.....$ 33.40 17.63

TRUCK DRIVER: GROUP 4- ASPHALT BURNER; DUMP TRUCKS, SIDE, END AND BOTTOM CUMPS, INCLUDING SEMI-TRUCKS AND TRAINS OR COMBINATIONS THEREOF: OVER 30 CU. YDS. AND INCLUDING 50 CU. YDS. INCLUDES ARTICULATED DUMP TRUCKS; FIRE GUARD; TRANSIT MIX AND WET OR DRY MIX TRUCKS, OVER 11 CU. YDS. AND INCLUDING 15 CU. YDS.; WATER WAGON (RATED CAPACITY) OVER 10,000 GALLONS TO 15,000 GALLONS

(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA, AND WAHKIAKUM COUNTIES)

ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - $1.15 ZONE 4 - $1.70 ZONE 5 - $2.75. BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER. ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL. ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL.....$ 33.72 17.63

TRUCK DRIVER: GROUP 5- COMPOSITE CREWMAN; DUMP TRUCKS, SIDE, END AND BOTTOM DUMPS, INCLUDING SEMI TRUCKS AND TRAINS OR COMBINATIONS THEREOF: OVER 50 CU. YDS. AND INCLUDING 60 CU. YDS. INCLUDES ARTICULATED DUMP TRUCKS

(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA, AND WAHKIAKUM COUNTIES)

ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 - $0.65 ZONE 3 - $1.15 ZONE 4 - $1.70 ZONE 5 - $2.75. BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER. ZONE 1: PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY HALL. ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80 MILES FROM THE RESPECTIVE CITY HALL.....$ 33.97 17.63

TRUCK DRIVER:GROUP 6- BULK CEMENT SPREADER W/O AUGER; DRY PRE-BATCH CONCRETE MIX TRUCKS; DUMP TRUCKS, SIDE, END AND BOTTOM DUMPS, INCLUDING SEMI TRUCKS AND TRAINS OF COMBINATIONS THEREOF: OVER 60 CU. YDS. AND INCLUDING 80 CU. YDS., AND INCLUDES

ARTICULATED DUMP TRUCKS; SKID TRUCK
(CLARK,
COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT
LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF
WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN),
SKAMANIA, AND WAHKIAKUM COUNTIES)
ZONE DIFFERENTIAL- ZONE 1: BASE RATE. ZONE 2 -
$0.65 ZONE 3 - $1.15 ZONE 4 - $1.70 ZONE 5 -
$2.75. BASE POINTS: ASTORIA, THE DALLES, LONGVIEW
AND VANCOUVER. ZONE 1: PROJECTS WITHIN 30 MILES
OF THE RESPECTIVE CITY HALL. ZONE 2: MORE THAN
30 MILES BUT LESS THAN 40 MILES FROM THE RESPECTIVE
CITY HALL. ZONE 3: MORE THAN 40 MILES BUT LESS
THAN 50 MILES FROM THE RESPECTIVE CITY HALL. ZONE
4: MORE THAN 50 MILES BUT LESS THAN 80 MILES FROM
THE RESPECTIVE CITY HALL. ZONE 5: MORE THAN 80
MILES FROM THE RESPECTIVE CITY HALL.....$ 34.18 17.63
TRUCK DRIVER: GROUP 7- DUMP TRUCKS, SIDE, END AND
BOTTOM DUMPS, INCLUDING SEMI TRUCKS AND TRAINS OR
COMBINATIONS THEREOF: OVER 80 CU. YDS. AND
INCLUDING 100 CU. YDS., INCLUDES ARTICULATED DUMP
TRUCKS; INDUSTRIAL LIFT TRUCK (MECHANICAL TAILGATE)
(CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH
OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH
BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE
PACIFIC OCEAN), SKAMANIA, AND WAHKIAKUM COUNTIES)
ZONE DIFFERENTIAL- ZONE 1: BASE
RATE. ZONE 2 - $0.65 ZONE 3 - $1.15 ZONE 4 -
$1.70 ZONE 5 - $2.75. BASE POINTS: ASTORIA, THE
DALLES, LONGVIEW AND VANCOUVER. ZONE 1:
PROJECTS WITHIN 30 MILES OF THE RESPECTIVE CITY
HALL. ZONE 2: MORE THAN 30 MILES BUT LESS THAN
40 MILES FROM THE RESPECTIVE CITY HALL. ZONE 3:
MORE THAN 40 MILES BUT LESS THAN 50 MILES FROM THE
RESPECTIVE CITY HALL. ZONE 4: MORE THAN 50 MILES
BUT LESS THAN 80 MILES FROM THE RESPECTIVE CITY
HALL. ZONE 5: MORE THAN 80 MILES FROM THE
RESPECTIVE CITY HALL.....$ 34.42 17.63

TEAM0174-001 06/01/2025

Rates Fringes
TRUCK DRIVER: GROUP 1- ""A-FRAME OR HYDRALIFT""
TRUCKS AND BOOM TRUCKS OR SIMILAR EQUIPMENT WHEN
""A"" FRAME OR ""HYDRALIFT"" AND BOOM TRUCK OR SIMILAR
EQUIPMENT IS USED; BUGGYMOBILE; BULK CEMENT TANKER;
DUMPSTERS AND SIMILAR EQUIPMENT, TOURNOROCKERS,
TOURNOWAGON, TOURNOTRAILER, CAT DW SERIES, TERRA
COBRA, LE TOURNEAU, WESTINGHOUSE, ATHYE WAGON,
EUCLID TWO AND FOUR-WHEELED POWER TRACTOR WITH
TRAILER AND SIMILAR TOP-LOADED EQUIPMENT
TRANSPORTING MATERIAL: DUMP TRUCKS, SIDE, END AND
BOTTOM DUMP, INCLUDING SEMI-TRUCKS AND TRAINS OR
COMBINATIONS THEREOF WITH 16 YARDS TO 30 YARDS
CAPACITY: OVER 30 YARDS $.15 PER HOUR ADDITIONAL
FOR EACH 10 YARD INCREMENT; EXPLOSIVE TRUCK (FIELD

MIX) AND SIMILAR EQUIPMENT; HYSTER OPERATORS (HANDLING BULK LOOSE AGGREGATES); LOWBED AND HEAVY DUTY TRAILER; ROAD OIL DISTRIBUTOR DRIVER; SPREADER, FLAHERTY TRANSIT MIX USED EXCLUSIVELY IN HEAVY CONSTRUCTION; WATER WAGON AND TANK TRUCK-3,000 GALLONS AND OVER CAPACITY (HAZMAT PROJECTS ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITION TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C: +$0.25 PER HOUR - THIS LEVEL USES AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL B: +$0.50 PER HOUR - USES SAME RESPIRATOR PROTECTION AS LEVEL A. SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT."" LEVEL A: +$0.75 PER HOUR - THIS LEVEL UTILIZES A FULLY- ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE.)

(CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES)

ZONE A: (LESS THAN 25 MILES FROM CENTER OF LISTED CITIES*). BASE RATE. ZONE B: (25-45 MILES FROM CENTER OF LISTED CITIES*): $0.70. ZONE C (OVER 45 MILES FROM CENTR OF LISTED CITIES*): $1.00. *ZONE PAY WILL BE CALCULATED FROM THE CITY CENTER OF THE FOLLOWING LISTED CITIES: BELLINGHAM, CENTRALIA, RAYMOND, OLYMPIA EVERETT, SHELTON, ANACORTES, BELLEVUE, SEATTLE, PORT ANGELES, MT. VERNON, KENT, TACOMA, PORT TOWNSEND, ABERDEEN, BREMERTON. .....$ 55.43 27.52

TRUCK DRIVER: GROUP 2- BULLLIFTS, OR SIMILAR EQUIPMENT USED IN LOADING OR UNLOADING TRUCKS, TRANSPORTING MATERIALS ON JOB SITE; DUMPSTERS, AND SIMILAR EQUIPMENT, TOURNOROCKERS, TOURNOWAGON, TURNOTRAILER, CAT. D.W. SERIES, TERRA COBRA, LE TOURNEAU, WESTINGHOUSE, ATHYE WAGON, EUCLID TWO AND FOUR-WHEELED POWER TRACTOR WITH TRAILER AND SIMILAR TOP-LOADED EQUIPMENT TRANSPORTING MATERIAL: DUMP TRUCKS, SIDE, END AND BOTTOM DUMP, INCLUDING SEMI-TRUCKS AND TRAINS OR COMBINATIONS THEREOF WITH LESS THAN 16 YARDS CAPACITY; FLATBED (DUAL REAR AXLE); GREASE TRUCK, FUEL TRUCK, GREASER, BATTERY SERVICE MAN AND/OR TIRE SERVICE MAN; LEVERMAN AND LOADER AT BUNKERS AND BATCH PLANTS; OIL TANK TRANSPORT; SCISSOR TRUCK; SLURRY TRUCK; SNO-GO AND SIMILAR EQUIPMENT; SWAMPERS; STRADDLER CARRIER (ROSS, HYSTER) AND SIMILAR EQUIPMENT; TEAM DRIVER; TRACTOR (SMALL, RUBBER-TIRED)(WHEN USED WITHIN TEAMSTER JURISDICTION); VACUUM TRUCK; WATER WAGON AND TANK TRUCKS-LESS THAN 3,000 GALLONS CAPACITY; WINCH TRUCK; WRECKER, TOW TRUCK AND SIMILAR

EQUIPMENT
(HAZMAT PROJECTS ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITION TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C: +$0.25 PER HOUR - THIS LEVEL USES AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL B: +$0.50 PER HOUR - USES SAME RESPIRATOR PROTECTION AS LEVEL A. SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT."" LEVEL A: +$0.75 PER HOUR - THIS LEVEL UTILIZES A FULLY- ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE.)
(CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES)
ZONE A: (LESS THAN 25 MILES FROM CENTER OF LISTED CITIES*). BASE RATE. ZONE B: (25-45 MILES FROM CENTER OF LISTED CITIES*): $0.70.
ZONE C (OVER 45 MILES FROM CENTR OF LISTED CITIES*): $1.00. *ZONE PAY WILL BE CALCULATED FROM THE CITY CENTER OF THE FOLLOWING LISTED CITIES: BELLINGHAM, CENTRALIA, RAYMOND, OLYMPIA EVERETT, SHELTON, ANACORTES, BELLEVUE, SEATTLE, PORT ANGELES, MT. VERNON, KENT, TACOMA, PORT TOWNSEND, ABERDEEN, BREMERTON. .....$ 54.59 27.52
TRUCK DRIVER: GROUP 3- FLATBED (SINGLE REAR AXLE); PICKUP SWEEPER; PICKUP TRUCK. (ADJUST GROUP 3 UPWARD BY $2.00 PER HOUR FOR ONSITE WORK ONLY)
(HAZMAT PROJECTS ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITION TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C: +$0.25 PER HOUR - THIS LEVEL USES AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL B: +$0.50 PER HOUR - USES SAME RESPIRATOR PROTECTION AS LEVEL A. SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT."" LEVEL A: +$0.75 PER HOUR - THIS LEVEL UTILIZES A FULLY- ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE.)
(CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES)
ZONE A: (LESS THAN 25 MILES FROM CENTER OF LISTED CITIES*). BASE RATE. ZONE B: (25-45 MILES FROM CENTER OF LISTED CITIES*): $0.70.
ZONE C (OVER 45 MILES FROM CENTR OF LISTED

CITIES*): $1.00. *ZONE PAY WILL BE CALCULATED FROM THE CITY CENTER OF THE FOLLOWING LISTED CITIES: BELLINGHAM, CENTRALIA, RAYMOND, OLYMPIA EVERETT, SHELTON, ANACORTES, BELLEVUE, SEATTLE, PORT ANGELES, MT. VERNON, KENT, TACOMA, PORT TOWNSEND, ABERDEEN, BREMERTON. .....$ 51.78 27.52

TRUCK DRIVER: GROUP 4- ESCORT OR PILOT CAR (HAZMAT PROJECTS ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITION TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C: +$0.25 PER HOUR - THIS LEVEL USES AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL B: +$0.50 PER HOUR - USES SAME RESPIRATOR PROTECTION AS LEVEL A. SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT."" LEVEL A: +$0.75 PER HOUR - THIS LEVEL UTILIZES A FULLY- ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE.)

(CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES)

ZONE A: (LESS THAN 25 MILES FROM CENTER OF LISTED CITIES*). BASE RATE. ZONE B: (25-45 MILES FROM CENTER OF LISTED CITIES*): $0.70. ZONE C (OVER 45 MILES FROM CENTR OF LISTED CITIES*): $1.00. *ZONE PAY WILL BE CALCULATED FROM THE CITY CENTER OF THE FOLLOWING LISTED CITIES: BELLINGHAM, CENTRALIA, RAYMOND, OLYMPIA EVERETT, SHELTON, ANACORTES, BELLEVUE, SEATTLE, PORT ANGELES, MT. VERNON, KENT, TACOMA, PORT TOWNSEND, ABERDEEN, BREMERTON. .....$ 46.81 27.52

TRUCK DRIVER: GROUP 5- MECHANIC (HAZMAT PROJECTS ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITION TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C: +$0.25 PER HOUR - THIS LEVEL USES AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL B: +$0.50 PER HOUR - USES SAME RESPIRATOR PROTECTION AS LEVEL A. SUPPLIED AIR LINE IS PROVIDED IN CONJUNCTION WITH A CHEMICAL ""SPLASH SUIT."" LEVEL A: +$0.75 PER HOUR - THIS LEVEL UTILIZES A FULLY- ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS OR A SUPPLIED AIR LINE.)

(CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (NORTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE

PACIFIC OCEAN), PIERCE, SAN JUAN, SKAGIT,
SNOHOMISH, THURSTON AND WHATCOM COUNTIES)
ZONE A: (LESS THAN 25 MILES FROM
CENTER OF LISTED CITIES*). BASE RATE. ZONE B:
(25-45 MILES FROM CENTER OF LISTED CITIES*): $0.70.
ZONE C (OVER 45 MILES FROM CENTR OF LISTED
CITIES*): $1.00. *ZONE PAY WILL BE CALCULATED
FROM THE CITY CENTER OF THE FOLLOWING LISTED
CITIES: BELLINGHAM, CENTRALIA, RAYMOND, OLYMPIA
EVERETT, SHELTON, ANACORTES, BELLEVUE, SEATTLE,
PORT ANGELES, MT. VERNON, KENT, TACOMA, PORT
TOWNSEND, ABERDEEN, BREMERTON. .....$ 54.98 27.52

TEAM0690-004 06/01/2024

	Rates	Fringes
TRUCK DRIVERS: GROUP 1- ESCORT DRIVER OR PILOT CAR; EMPLOYEE HAUL; POWER BOAT HAULING EMPLOYEES OR MATERIAL. (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1: LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS, CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE.	$ 36.83	20.93
TRUCK DRIVERS: GROUP 2- FISH TRUCK; FLAT BED TRUCK; FORK LIFT (3,000 LBS. AND UNDER); LEVERPERSON (LOADING TRUCKS AT BUNKERS); TRAILER MOUNTED HYDRO SEEDER AND MULCHER; SEEDER & MULCHER; STATIONARY FUEL OPERATOR; TRACTOR (SMALL, RUBBER-TIRED, PULLING TRAILER OR SIMILAR (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1:		

LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS, CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 39.47 20.93

TRUCK DRIVERS: GROUP 3- AUTO CRANE (2,000 LBS. CAPACITY); BUGGY MOBILE & SIMILAR; BULK CEMENT TANKS & SPREADER; DUMPTOR (6 YDS. & UNDER); FLAT BED TRUCK WITH HYDRAULLIC SYSTEM; FORK LIFT (3,001-16,000 LBS.); FUEL TRUCK DRIVER, STEAMCLEANER & WASHER; POWER OPERATED SWEEPER; RUBBER-TIRED TUNNEL JUMBO; SCISSORS TRUCK; SLURRY TRUCK DRIVER; STRADDLE CARRIER (ROSS, HYSTER, & SIMILAR); TIREPERSON; TRANSIT MIXERS & TRUCK HAULING CONCRETE (3 YD. TO & INCLUDING 6 YDS.); TRUCKS, SIDE, END, BOTTOM & ARTICULATD END DUMP (3 YARDS TO AND INCLUDING 6 YDS.); WAREHOUSEPERSON (TO INCLUDE SHIPPING & RECEIVING); WRECKER & TOW (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1: LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS, CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE.
FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS

CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 39.58 20.93

TRUCK DRIVERS: GROUP 4- A-FRAME; BURNER, CUTTER, & WELDER; SERVICE GRASER; TRUCKS, SIDE, END, BOTTOM & ARTICULATED END DUMP (OVER 6 YARDS TO AND INCLUDING 12 YDS.); TRUCK MOUNTED HYDRO SEEDER; WAREHOUSEPERSON; WATER TANK TRUCK (0-8,000 (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1: LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS, CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 39.91 20.93

TRUCK DRIVERS: GROUP 5- DUMPTOR (OVER 6 YDS.); LOWBOY (50 TONS & UNDER); SELF-LOADING ROLL OFF; SEMI-TRUCK & TRAILER; TRACTOR WITH STEER TRAILER; TRANSIT MIXERS AND TRUCKS HAULING CONCRETE (OVER 6 YDS. TO AN INCLUDING 10 YDS.); TRUCKS, SIDE, END, BOTTOM AND END DUMP (OVER 12 YDS. TO & INCLUDING 20 YDS.); TRUCK-MOUNTED CRANE (WITH LOAD BEARING SURFACE EITHER MOUNTED OR PULLED, UP TO 14 TON); VACUUM TRUCK (SUPER SUCKER, GUZZLER, (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1: LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS, CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO,

LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 40.02 20.93

TRUCK DRIVERS: GROUP 6- FLAHERTY SPREADER BOX DRIVER; FLOWBOYS; FORK LIFT (OVER 16,000 LBS.); DUMPS (SEMI-END); MECHANIC (FIELD); SEMI-END DUMPS; TRANSFER TRUCK & TRAILER; TRANSIT MIXERS & TRUCKS HAULING CONCRETE (OVER 10 YDS. TO & INCLUDING 20 YDS.); TRUCKS, SIDE, END, BOTTOM AND ARTICULATED END DUMP (OVER 20 YDS. TO & INCLUDING 40 YDS.); TRUCK AND PUP; TOURNAROCKER, DWS & SIMILAR WITH 2 OR MORE 4 WHEEL-POWER TRACKTOR WITH TRAILER, GALLONAGE OR YARDAGE SCALE, WHICHEVER IS GREATER WATER TANK TRUCK (8,001- 14,000 GALLONS); LOWBOY (OVER 50

(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1: LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS, CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 40.22 20.93

TRUCK DRIVERS: GROUP 7- OIL DISTRIBUTOR DRIVER; STRINGER TRUCK (CABLE OPERATED TRAILER); TRANSIT

MIXERS & TRUCKS HAULING CONCRETE (OVER 20 YDS.);
TRUCK, SIDE, END, BOTTOM END DUMP (OVER 40 YDS. TO
& INCLUDING 100 YDS.); TRUCK MOUNTED CRANE (WITH
LOAD BEARING SURFACE EITHER MOUNTED OR PULLED (16
THROUGH 25
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,
FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA
WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1:
LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND
GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS,
CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND
WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE
RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO,
LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN
POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM
THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING
ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS
REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN
ADDITON TO THE CLASSIFICATION WORKING IN AS
FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE
LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN
AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE
CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED
AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR
FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED
BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT
PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS.
NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 40.56 20.93
TRUCK DRIVERS: GROUP 8- PRIME MOVERS AND STINGER
TRUCK; TRUCKS, SIDE, END, BOTTOM AND ARTICULATED
END DUMP (OVER 100 YDS.); HELICOPTER PILOT HAULING
EMPLOYEES OR
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,
FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA
WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 1:
LEWISTON ZONE CENTER: ASOTIN, COLUMBIA, AND
GARFIELD COUNTIES; SPOKANE ZONE CENTER: ADAMS,
CHELAN, DOUGLAS, FERRY, GRANT, KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, AND
WHITMAN COUNTIES) ZONE DIFFERENTIAL: ZONE 1- BASE
RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO,
LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN
POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM
THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING
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AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR

FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED
BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT
PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS.
NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 40.88 20.93
TRUCK DRIVERS: GROUP 1- ESCORT DRIVER OR PILOT CAR;
EMPLOYEE HAUL; POWER BOAT HAULING EMPLOYEES OR
MATERIAL. (ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA,
DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS,
LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS,
WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2:
PASCO ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA
AND YAKIMA COUNTIES). ZONE DIFFERENTIAL: ZONE 1-
BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE,
PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE
MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES
FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE
WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION
IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN
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FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED
BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT
PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS.
NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 33.83 20.93
TRUCK DRIVERS: GROUP 2- FISH TRUCK; FLAT BED TRUCK;
FORK LIFT (3,000 LBS. AND UNDER); LEVERPERSON
(LOADING TRUCKS AT BUNKERS); TRAILER MOUNTED HYDRO
SEEDER AND MULCHER; SEEDER & MULCHER; STATIONARY
FUEL OPERATOR; TRACTOR (SMALL, RUBBER-TIRED,
PULLING TRAILER OR SIMILAR
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,
FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA
WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2: PASCO
ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA AND
YAKIMA COUNTIES). ZONE DIFFERENTIAL: ZONE 1- BASE
RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO,
LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN
POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM
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BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT

PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS.
NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 36.47 20.93
TRUCK DRIVERS: GROUP 3- AUTO CRANE (2,000 LBS.
CAPACITY); BUGGY MOBILE & SIMILAR; BULK CEMENT
TANKS & SPREADER; DUMPTOR (6 YDS. & UNDER); FLAT
BED TRUCK WITH HYDRAULLIC SYSTEM; FORK LIFT
(3,001-16,000 LBS.); FUEL TRUCK DRIVER,
STEAMCLEANER & WASHER; POWER OPERATED SWEEPER;
RUBBER-TIRED TUNNEL JUMBO; SCISSORS TRUCK; SLURRY
TRUCK DRIVER; STRADDLE CARRIER (ROSS, HYSTER, &
SIMILAR); TIREPERSON; TRANSIT MIXERS & TRUCK
HAULING CONCRETE (3 YD. TO & INCLUDING 6 YDS.);
TRUCKS, SIDE, END, BOTTOM & ARTICULATD END DUMP (3
YARDS TO AND INCLUDING 6 YDS.); WAREHOUSEPERSON (TO
INCLUDE SHIPPING & RECEIVING); WRECKER & TOW
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,
FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA
WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2: PASCO
ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA AND
YAKIMA COUNTIES). ZONE DIFFERENTIAL: ZONE 1- BASE
RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO,
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PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS.
NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 36.58 20.93
TRUCK DRIVERS: GROUP 4- A-FRAME; BURNER, CUTTER, &
WELDER; SERVICE GRASER; TRUCKS, SIDE, END, BOTTOM &
ARTICULATED END DUMP (OVER 6 YARDS TO AND INCLUDING
12 YDS.); TRUCK MOUNTED HYDRO SEEDER;
WAREHOUSEPERSON; WATER TANK TRUCK (0-8,000
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,
FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA
WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2: PASCO
ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA AND
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NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 36.91 20.93
TRUCK DRIVERS: GROUP 5- DUMPTOR (OVER 6 YDS.);
LOWBOY (50 TONS & UNDER); SELF-LOADING ROLL OFF;
SEMI-TRUCK & TRAILER; TRACTOR WITH STEER TRAILER;
TRANSIT MIXERS AND TRUCKS HAULING CONCRETE (OVER 6
YDS. TO AN INCLUDING 10 YDS.); TRUCKS, SIDE, END,
BOTTOM AND END DUMP (OVER 12 YDS. TO & INCLUDING 20
YDS.); TRUCK-MOUNTED CRANE (WITH LOAD BEARING
SURFACE EITHER MOUNTED OR PULLED, UP TO 14 TON);
VACUUM TRUCK (SUPER SUCKER, GUZZLER,
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,
FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA
WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2: PASCO
ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA AND
YAKIMA COUNTIES). ZONE DIFFERENTIAL: ZONE 1- BASE
RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO,
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AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR
FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED
BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT
PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS.
NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 37.02 20.93
TRUCK DRIVERS: GROUP 6- FLAHERTY SPREADER BOX
DRIVER; FLOWBOYS; FORK LIFT (OVER 16,000 LBS.);
DUMPS (SEMI-END); MECHANIC (FIELD); SEMI-END DUMPS;
TRANSFER TRUCK & TRAILER; TRANSIT MIXERS & TRUCKS
HAULING CONCRETE (OVER 10 YDS. TO & INCLUDING 20
YDS.); TRUCKS, SIDE, END, BOTTOM AND ARTICULATED
END DUMP (OVER 20 YDS. TO & INCLUDING 40 YDS.);
TRUCK AND PUP; TOURNAROCKER, DWS & SIMILAR WITH 2
OR MORE 4 WHEEL-POWER TRACKTOR WITH TRAILER,
GALLONAGE OR YARDAGE SCALE, WHICHEVER IS GREATER
WATER TANK TRUCK (8,001- 14,000 GALLONS); LOWBOY
(OVER 50
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,

FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2: PASCO ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA AND YAKIMA COUNTIES). ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 37.22 20.93

TRUCK DRIVERS: GROUP 7- OIL DISTRIBUTOR DRIVER; STRINGER TRUCK (CABLE OPERATED TRAILER); TRANSIT MIXERS & TRUCKS HAULING CONCRETE (OVER 20 YDS.); TRUCK, SIDE, END, BOTTOM END DUMP (OVER 40 YDS. TO & INCLUDING 100 YDS.); TRUCK MOUNTED CRANE (WITH LOAD BEARING SURFACE EITHER MOUNTED OR PULLED (16 THROUGH 25
(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2: PASCO ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA AND YAKIMA COUNTIES). ZONE DIFFERENTIAL: ZONE 1- BASE RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO, LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN ADDITON TO THE CLASSIFICATION WORKING IN AS FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS. NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 37.56 20.93

TRUCK DRIVERS: GROUP 8- PRIME MOVERS AND STINGER TRUCK; TRUCKS, SIDE, END, BOTTOM AND ARTICULATED END DUMP (OVER 100 YDS.); HELICOPTER PILOT HAULING EMPLOYEES OR

(ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS,
FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN,
OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA
WALLA, WHITMAN AND YAKIMA COUNTIES) (AREA 2: PASCO
ZONE CENTER: BENTON, FRANKLIN, WALLA WALLA AND
YAKIMA COUNTIES). ZONE DIFFERENTIAL: ZONE 1- BASE
RATE. ZONE 2: $2.00. BASE POINTS: SPOKANE, PASCO,
LEWISTON. ZONE 1: 0-45 RADIUS MILES FROM THE MAIN
POST OFFICE. ZONE 2: OUTSIDE 45 RADIUS MILES FROM
THE MAIN POST OFFICE. FOOTNOTE A - ANYONE WORKING
ON A HAZMAT JOB, WHERE HAZMAT CERTIFICATION IS
REQUIRED, SHALL BE COMPENSATED AS A PREMIUM, IN
ADDITON TO THE CLASSIFICATION WORKING IN AS
FOLLOWS: LEVEL C-D: -$0.50 PER HOUR (THIS IS THE
LOWEST LEVEL OF PROTECTION. THIS LEVEL MAY USE AN
AIR PURIFYING RESPIRATOR OR ADDITIONAL PROTECTIVE
CLOTHING. LEVEL A-B: $1.00 PER HOUR (USES SUPPLIED
AIR IS CONJUNCTION WITH A CHEMICAL SPASH SUIT OR
FULLY ENCAPSULATED SUIT WITH A SELF-CONTAINED
BREATHING APPARATUS. EMPLOYEES SHALL BE PAID HAZMAT
PAY IN INCREMENTS OF FOUR(4) AND EIGHT(8) HOURS.
NOTE: TRUCKS PULLING EQUIPMENT TRAILERS: SHALL
RECEIVE $0.15/HOUR OVER APPLICABLE TRUCK RATE. .....$ 37.88 20.93

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.
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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject
to the Davis-Bacon Act that were awarded on or between January 1,
2015 and January 29, 2022, and that have not been renewed or
extended on or after January 30, 2022. Executive Order 13658 does
not apply to contracts subject only to the Davis-Bacon Related Acts
regardless of when they were awarded. If a contract is subject to
Executive Order 13658, the contractor must pay all covered workers
at least $13.65 per hour (or the applicable wage rate listed on this

wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the

collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor

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            200 Constitution Avenue, N.W.
            Washington, DC 20210
Regarding any other wage determination matter such as
conformance decisions, requests for initial decisions should be
directed to the WHD Branch of Construction Wage Determinations.
Requests can be submitted via email to BCWD-Office@dol.gov or
by mail to:
            Branch of Construction Wage Determinations
            Wage and Hour Division
            U.S. Department of Labor
            200 Constitution Avenue, N.W.
            Washington, DC 20210
2) If an initial decision has been issued, then any interested
party (those affected by the action) that disagrees with the
decision can request review and reconsideration from the Wage
and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).
Requests for review and reconsideration can be submitted via
email to dba.reconsideration@dol.gov or by mail to:
            Wage and Hour Administrator
            U.S. Department of Labor
            200 Constitution Avenue, N.W.
            Washington, DC 20210
The request should be accompanied by a full statement of the
interested party's position and any information (wage payment
data, project description, area practice material, etc.) that
the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an
interested party may appeal directly to the Administrative
Review Board (formerly the Wage Appeals Board).  Write to:
            Administrative Review Board
            U.S. Department of Labor
            200 Constitution Avenue, N.W.
            Washington, DC 20210.
================================================================
          END OF GENERAL DECISION
"
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Washington State Wage Rates

State of Washington
Department of Labor & Industries
Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage
The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 08/10/2026

Snohomish County

Trade	Job Classification	Wage	Holiday	Overtime	Note
Asbestos Abatement Workers	Journey Level	$67.39	**5D**	**1H**	
Boilermakers	Journey Level	$80.89	**5N**	**1C**	
Brick Mason	Journey Level	$76.07	**7E**	**1N**	
Brick Mason	Pointer-Caulker-Cleaner	$76.07	**7E**	**1N**	
Building Service Employees	Janitor	$17.13		**1**	
Building Service Employees	Shampooer	$17.13		**1**	
Building Service Employees	Waxer	$17.13		**1**	

Building Service Employees	Window Cleaner	$17.13		1	
Cabinet Makers (In Shop)	Journey Level	$27.33	5C	2M	
Carpenters	Acoustical Worker	$83.21	15J	11U	
Carpenters	Bridge Dock and Wharf Carpenter	$84.81	15J	11U	9L
Carpenters	Floor Layer & Floor Finisher	$83.21	15J	11U	
Carpenters	General Carpenter	$83.21	15J	11U	
Carpenters	Scaffold Erector	$83.21	15J	11U	
Cement Masons	Application of all Composition Mastic	$81.87	15J	4U	
Cement Masons	Application of all Epoxy Material	$81.36	15J	4U	
Cement Masons	Application of all Plastic Material	$81.87	15J	4U	
Cement Masons	Application of Sealing Compound	$81.36	15J	4U	
Cement Masons	Application of Underlayment	$81.87	15J	4U	
Cement Masons	Building General	$81.36	15J	4U	
Cement Masons	Composition or Kalman Floors	$81.87	15J	4U	

Cement Masons	Concrete Paving	$81.36	**15J**	**4U**
Cement Masons	Curb & Gutter Machine	$81.87	**15J**	**4U**
Cement Masons	Curb & Gutter, Sidewalks	$81.36	**15J**	**4U**
Cement Masons	Curing Concrete	$81.36	**15J**	**4U**
Cement Masons	Finish Colored Concrete	$81.87	**15J**	**4U**
Cement Masons	Floor Grinding	$81.87	**15J**	**4U**
Cement Masons	Floor Grinding/Polisher	$81.36	**15J**	**4U**
Cement Masons	Green Concrete Saw, self-powered	$81.87	**15J**	**4U**
Cement Masons	Grouting of all Plates	$81.36	**15J**	**4U**
Cement Masons	Grouting of all Tilt-up Panels	$81.36	**15J**	**4U**
Cement Masons	Gunite Nozzleman	$81.87	**15J**	**4U**
Cement Masons	Hand Powered Grinder	$81.87	**15J**	**4U**
Cement Masons	Journey Level	$81.36	**15J**	**4U**
Cement Masons	Patching Concrete	$81.36	**15J**	**4U**
Cement Masons	Pneumatic Power Tools	$81.87	**15J**	**4U**
Cement Masons	Power Chipping & Brushing	$81.87	**15J**	**4U**

Cement Masons	Sand Blasting Architectural Finish	$81.87	**15J**	**4U**	
Cement Masons	Screed & Rodding Machine	$81.87	**15J**	**4U**	
Cement Masons	Spackling or Skim Coat Concrete	$81.36	**15J**	**4U**	
Cement Masons	Troweling Machine Operator	$81.87	**15J**	**4U**	
Cement Masons	Troweling Machine Operator on Colored Slabs	$81.87	**15J**	**4U**	
Cement Masons	Tunnel Workers	$81.87	**15J**	**4U**	
Divers & Tenders	Bell/Vehicle/Submersible Operator (not under pressure)	$144.72	**15J**	**11T**	**9I**
Divers & Tenders	Dive Supervisor	$146.22	**15J**	**11T**	**9I**
Divers & Tenders	Diver	$144.72	**15J**	**11T**	**9I**
Divers & Tenders	Diver Tender	$91.05	**15J**	**11T**	**9I**
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	$114.73	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 30.01-44.00 PSI	$124.28	**15J**	**11U**	

Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	$133.82	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	$143.37	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	$152.91	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	$162.46	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	$172.00	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	$181.55	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	$191.09	**15J**	**11U**	
Divers & Tenders	Lead Diver (Dive Master)	$105.51	**15J**	**11T**	**9I**
Divers & Tenders	Manifold Operator (Life Support Technician)	$96.05	**15J**	**11U**	**9I**
Divers & Tenders	Remote Operated Vehicle Operator/Technician	$91.05	**15J**	**11T**	**9I**

Divers & Tenders	Remote Operated Vehicle Operator/Technician	$91.05	**15J**	**11U**	**9I**
Divers & Tenders	Remote Operated Vehicle Tender	$84.75	**15J**	**11T**	**9I**
Divers & Tenders	Stand-by Diver	$100.51	**15J**	**11T**	**9I**
Dredge Workers	Assistant Engineer	$89.47	**5D**	**3F**	
Dredge Workers	Assistant Mate (Deckhand)	$88.78	**5D**	**3F**	
Dredge Workers	Boatmen	$89.47	**5D**	**3F**	
Dredge Workers	Engineer Welder	$91.20	**5D**	**3F**	
Dredge Workers	Leverman, Hydraulic	$93.03	**5D**	**3F**	
Dredge Workers	Mates	$89.47	**5D**	**3F**	
Dredge Workers	Oiler	$88.78	**5D**	**3F**	
Drywall Applicator	Journey Level	$81.71	**15O**	**11S**	
Drywall Tapers	Journey Level	$81.71	**15O**	**11S**	
Electrical Fixture Maintenance Workers	Journey Level	$17.13		**1**	
Electricians - Inside	Cable Splicer	$100.52	**7H**	**1E**	
Electricians - Inside	Construction Stock Person	$48.08	**7H**	**1D**	

Electricians - Inside	Journey Level	$94.06	**7H**	**1E**	
Electricians - Motor Shop	Craftsman	$17.13		**1**	
Electricians - Motor Shop	Journey Level	$17.13		**1**	
Electricians - Powerline Construction	Cable Splicer	$107.31	**5A**	**4D**	
Electricians - Powerline Construction	Certified Line Welder	$98.45	**5A**	**4D**	
Electricians - Powerline Construction	Groundperson	$61.75	**5A**	**4D**	
Electricians - Powerline Construction	Heavy Line Equipment Operator	$98.45	**5A**	**4D**	
Electricians - Powerline Construction	Journey Level Lineperson	$98.45	**5A**	**4D**	
Electricians - Powerline Construction	Line Equipment Operator	$84.18	**5A**	**4D**	
Electricians - Powerline Construction	Meter Installer	$61.75	**5A**	**4D**	**8W**
Electricians - Powerline Construction	Pole Sprayer	$98.45	**5A**	**4D**	
Electricians - Powerline Construction	Powderperson	$72.81	**5A**	**4D**	
Electronic Technicians	Electronic Technicians Journey Level	$62.05	**5B**	**1B**	

Elevator Constructors	Mechanic	$119.17	**7D**	**4A**	
Elevator Constructors	Mechanic In Charge	$128.95	**7D**	**4A**	
Fabricated Precast Concrete Products	Journey Level	$17.13		**1**	
Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	$17.13		**1**	
Fence Erectors	Fence Erector	$57.66	**15J**	**11P**	**8Y**
Fence Erectors	Fence Laborer	$57.66	**15J**	**11P**	**8Y**
Flaggers	Journey Level	$57.66	**15J**	**11P**	**8Y**
Glaziers	Journey Level	$85.16	**7L**	**1Y**	
Heat & Frost Insulators And Asbestos Workers	Journey Level	$96.42	**15H**	**11C**	
Heating Equipment Mechanics	Journey Level	$107.92	**7F**	**1E**	
Hod Carriers & Mason Tenders	Journey Level	$71.09	**15J**	**11P**	**8Y**
Industrial Power Vacuum Cleaner	Journey Level	$17.13		**1**	
Inland Boatmen	Boat Operator	$71.28	**5B**	**1K**	
Inland Boatmen	Cook	$69.70	**5B**	**1K**	
Inland Boatmen	Deckhand	$70.00	**5B**	**1K**	

Inland Boatmen	Deckhand Engineer	$69.55	**5B**	**1K**
Inland Boatmen	Launch Operator	$71.23	**5B**	**1K**
Inland Boatmen	Mate	$89.12	**5B**	**1K**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator	$54.56	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Foamer Operator	$54.56	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	$54.56	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	$52.40	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	$45.97	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	TV Truck Operator	$49.20	**15M**	**11O**
Insulation Applicators	Journey Level	$83.21	**15J**	**11U**
Ironworkers	Journeyman	$94.82	**15K**	**11N**

Laborers	Air, Gas Or Electric Vibrating Screed	$67.39	**15J**	**11P**	**8Y**
Laborers	Airtrac Drill Operator	$69.37	**15J**	**11P**	**8Y**
Laborers	Ballast Regular Machine	$67.39	**15J**	**11P**	**8Y**
Laborers	Batch Weighman	$57.66	**15J**	**11P**	**8Y**
Laborers	Brick Pavers	$67.39	**15J**	**11P**	**8Y**
Laborers	Brush Cutter	$67.39	**15J**	**11P**	**8Y**
Laborers	Brush Hog Feeder	$67.39	**15J**	**11P**	**8Y**
Laborers	Burner	$67.39	**15J**	**11P**	**8Y**
Laborers	Caisson Worker	$69.37	**15J**	**11P**	**8Y**
Laborers	Carpenter Tender	$67.39	**15J**	**11P**	**8Y**
Laborers	Cement Dumper-paving	$69.37	**15J**	**11P**	**8Y**
Laborers	Cement Finisher Tender	$67.39	**15J**	**11P**	**8Y**
Laborers	Change House Or Dry Shack	$67.39	**15J**	**11P**	**8Y**
Laborers	Chipping Gun (30 Lbs. And Over)	$68.56	**15J**	**11P**	**8Y**
Laborers	Chipping Gun (Under 30 Lbs.)	$67.39	**15J**	**11P**	**8Y**
Laborers	Choker Setter	$67.39	**15J**	**11P**	**8Y**

Laborers	Chuck Tender	$67.39	**15J**	**11P**	**8Y**
Laborers	Clary Power Spreader	$68.56	**15J**	**11P**	**8Y**
Laborers	Clean-up Laborer	$67.39	**15J**	**11P**	**8Y**
Laborers	Concrete Dumper/Chute Operator	$69.37	**15J**	**11P**	**8Y**
Laborers	Concrete Form Stripper	$67.39	**15J**	**11P**	**8Y**
Laborers	Concrete Placement Crew	$69.37	**15J**	**11P**	**8Y**
Laborers	Concrete Saw Operator/Core Driller	$68.56	**15J**	**11P**	**8Y**
Laborers	Crusher Feeder	$57.66	**15J**	**11P**	**8Y**
Laborers	Curing Laborer	$67.39	**15J**	**11P**	**8Y**
Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	$67.39	**15J**	**11P**	**8Y**
Laborers	Ditch Digger	$67.39	**15J**	**11P**	**8Y**
Laborers	Diver	$69.37	**15J**	**11P**	**8Y**
Laborers	Drill Operator (Hydraulic, Diamond)	$68.56	**15J**	**11P**	**8Y**
Laborers	Dry Stack Walls	$67.39	**15J**	**11P**	**8Y**
Laborers	Dump Person	$67.39	**15J**	**11P**	**8Y**

Laborers	Epoxy Technician	$67.39	**15J**	**11P**	**8Y**
Laborers	Erosion Control Worker	$67.39	**15J**	**11P**	**8Y**
Laborers	Faller & Bucker Chain Saw	$68.56	**15J**	**11P**	**8Y**
Laborers	Fine Graders	$67.39	**15J**	**11P**	**8Y**
Laborers	Firewatch	$57.66	**15J**	**11P**	**8Y**
Laborers	Form Setter	$69.37	**15J**	**11P**	**8Y**
Laborers	Gabian Basket Builders	$67.39	**15J**	**11P**	**8Y**
Laborers	General Laborer	$67.39	**15J**	**11P**	**8Y**
Laborers	Grade Checker & Transit Person	$71.09	**15J**	**11P**	**8Y**
Laborers	Grinders	$67.39	**15J**	**11P**	**8Y**
Laborers	Grout Machine Tender	$67.39	**15J**	**11P**	**8Y**
Laborers	Groutmen (Pressure) Including Post Tension Beams	$68.56	**15J**	**11P**	**8Y**
Laborers	Guardrail Erector	$67.39	**15J**	**11P**	**8Y**
Laborers	Hazardous Waste Worker (Level A)	$69.37	**15J**	**11P**	**8Y**
Laborers	Hazardous Waste Worker (Level B)	$68.56	**15J**	**11P**	**8Y**

Laborers	Hazardous Waste Worker (Level C)	$67.39	**15J**	**11P**	**8Y**
Laborers	High Scaler	$69.37	**15J**	**11P**	**8Y**
Laborers	Jackhammer	$68.56	**15J**	**11P**	**8Y**
Laborers	Laserbeam Operator	$68.56	**15J**	**11P**	**8Y**
Laborers	Maintenance Person	$67.39	**15J**	**11P**	**8Y**
Laborers	Manhole Builder-Mudman	$68.56	**15J**	**11P**	**8Y**
Laborers	Material Yard Person	$67.39	**15J**	**11P**	**8Y**
Laborers	Mold Abatement Worker	$67.39	**15J**	**11P**	**8Y**
Laborers	Motorman-Dinky Locomotive	$71.19	**15J**	**11P**	**8Y**
Laborers	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	$71.09	**15J**	**11P**	**8Y**
Laborers	Pavement Breaker	$68.56	**15J**	**11P**	**8Y**
Laborers	Pilot Car	$57.66	**15J**	**11P**	**8Y**
Laborers	Pipe Layer (Lead)	$71.09	**15J**	**11P**	**8Y**

Laborers	Pipe Layer/Tailor	$68.56	**15J**	**11P**	**8Y**
Laborers	Pipe Pot Tender	$68.56	**15J**	**11P**	**8Y**
Laborers	Pipe Reliner	$68.56	**15J**	**11P**	**8Y**
Laborers	Pipe Wrapper	$68.56	**15J**	**11P**	**8Y**
Laborers	Pot Tender	$67.39	**15J**	**11P**	**8Y**
Laborers	Powderman	$69.37	**15J**	**11P**	**8Y**
Laborers	Powderman's Helper	$67.39	**15J**	**11P**	**8Y**
Laborers	Power Jacks	$68.56	**15J**	**11P**	**8Y**
Laborers	Power Washer	$67.39	**15J**	**11P**	**8Y**
Laborers	Railroad Spike Puller - Power	$68.56	**15J**	**11P**	**8Y**
Laborers	Raker - Asphalt	$71.09	**15J**	**11P**	**8Y**
Laborers	Re-timberman	$69.37	**15J**	**11P**	**8Y**
Laborers	Remote Equipment Operator	$68.56	**15J**	**11P**	**8Y**
Laborers	Rigger/Signal Person	$68.56	**15J**	**11P**	**8Y**
Laborers	Rip Rap Person	$67.39	**15J**	**11P**	**8Y**
Laborers	Rivet Buster	$68.56	**15J**	**11P**	**8Y**

Laborers	Rodder	$69.37	**15J**	**11P**	**8Y**
Laborers	Scaffold Erector	$67.39	**15J**	**11P**	**8Y**
Laborers	Scale Person	$67.39	**15J**	**11P**	**8Y**
Laborers	Sloper (Over 20")	$68.56	**15J**	**11P**	**8Y**
Laborers	Sloper Sprayer	$67.39	**15J**	**11P**	**8Y**
Laborers	Spreader (Concrete)	$69.37	**15J**	**11P**	**8Y**
Laborers	Stake Hopper	$67.39	**15J**	**11P**	**8Y**
Laborers	Stock Piler	$67.39	**15J**	**11P**	**8Y**
Laborers	Swinging Stage/Boatswain Chair	$57.66	**15J**	**11P**	**8Y**
Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	$68.56	**15J**	**11P**	**8Y**
Laborers	Tamper (Multiple & Self-propelled)	$68.56	**15J**	**11P**	**8Y**
Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	$68.56	**15J**	**11P**	**8Y**
Laborers	Toolroom Person (at Jobsite)	$67.39	**15J**	**11P**	**8Y**
Laborers	Topper	$67.39	**15J**	**11P**	**8Y**
Laborers	Track Laborer	$67.39	**15J**	**11P**	**8Y**

Laborers	Track Liner (Power)	$68.56	**15J**	**11P**	**8Y**
Laborers	Traffic Control Laborer	$61.41	**15J**	**11P**	**9C**
Laborers	Traffic Control Supervisor	$64.86	**15J**	**11P**	**9C**
Laborers	Truck Mounted Attenuator	$61.41	**15J**	**11P**	**9C**
Laborers	Truck Spotter	$67.39	**15J**	**11P**	**8Y**
Laborers	Tugger Operator	$68.56	**15J**	**11P**	**8Y**
Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	$225.32	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	$230.35	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	$234.03	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	$239.73	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	$241.85	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	$246.95	**15J**	**11P**	**9B**

Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	$248.85	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	$250.85	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	$252.85	**15J**	**11P**	**9B**
Laborers	Tunnel Work-Guage and Lock Tender	$71.19	**15J**	**11P**	**8Y**
Laborers	Tunnel Work-Miner	$71.19	**15J**	**11P**	**8Y**
Laborers	Vibrator	$69.37	**15J**	**11P**	**8Y**
Laborers	Vinyl Seamer	$67.39	**15J**	**11P**	**8Y**
Laborers	Watchman	$52.73	**15J**	**11P**	**8Y**
Laborers	Welder	$68.56	**15J**	**11P**	**8Y**
Laborers	Well Point Laborer	$68.56	**15J**	**11P**	**8Y**
Laborers	Window Washer/Cleaner	$52.73	**15J**	**11P**	**8Y**
Laborers - Underground Sewer & Water	General Laborer & Topman	$67.39	**15J**	**11P**	**8Y**
Laborers - Underground Sewer & Water	Pipe Layer	$68.56	**15J**	**11P**	**8Y**

Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	$52.73	**15J**	**11P**	**8Y**
Landscape Construction	Landscape Operator	$91.81	**15J**	**11G**	**8X**
Landscape Maintenance	Groundskeeper	$17.13		**1**	
Lathers	Journey Level	$81.71	**15O**	**11S**	
Marble Setters	Journey Level	$76.07	**7E**	**1N**	
Metal Fabrication (In Shop)	Journey Level	$37.56	**0**	**11D**	
Millwright	Journey Level	$80.28	**15J**	**4C**	
Modular Buildings	Journey Level	$17.13		**1**	
Painters	Journey Level	$57.46	**6Z**	**11J**	
Pile Driver	Crew Tender	$80.50	**15J**	**11U**	**9L**
Pile Driver	Journey Level	$84.81	**15J**	**11U**	
Plasterers	Journey Level	$78.60	**7Q**	**1R**	
Plasterers	Nozzleman	$82.70	**7Q**	**1R**	
Playground & Park Equipment Installers	Journey Level	$17.13		**1**	
Plumbers & Pipefitters	Journey Level	$95.37	**5A**	**1G**	

Power Equipment Operators	Asphalt Plant Operators	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Assistant Engineer	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Barrier Machine (zipper)	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Batch Plant Operator: concrete	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Boat Operator	$92.08	**7A**	**11H**	**8X**
Power Equipment Operators	Bobcat	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Brokk - Remote Demolition Equipment	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Brooms	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Bump Cutter	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Cableways	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Chipper	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Compressor	$87.77	**15J**	**11G**	**8X**

Power Equipment Operators	Concrete Finish Machine - Laser Screed	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Conveyors	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Cranes Friction: 200 tons and over	$94.85	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes, A-frame: 10 tons and under	$86.60	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	$92.98	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 20 tons through 44 tons with attachments	$91.25	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 200 tons- 299 tons, or 250' of boom	$93.95	**7A**	**11H**	**8X**

	including jib with attachments				
Power Equipment Operators	Cranes: 300 tons and over or 300' of boom including jib with attachments	$94.85	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	$92.08	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: Friction cranes through 199 tons	$93.95	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: through 19 tons with attachments, a-frame over 10 tons	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators	Crusher	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Deck Engineer/Deck Winches (power)	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Derricks, On Building Work	$92.08	**7A**	**11H**	**8X**
Power Equipment Operators	Dozers D-9 & Under	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Drilling Machine	$94.30	**15J**	**11G**	**8X**

Power Equipment Operators	Elevator and man-lift: permanent and shaft type	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Forklift: 3000 lbs and over with attachments	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Forklifts: under 3000 lbs. with attachments	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Gradechecker/Stakeman	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Guardrail Punch	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Horizontal/Directional Drill Locator	$91.81	**15J**	**11G**	**8X**

Power Equipment Operators	Horizontal/Directional Drill Operator	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators	Hydralifts/boom trucks: 10 tons and under	$86.60	**7A**	**11H**	**8X**
Power Equipment Operators	Leverman	$95.28	**15J**	**11G**	**8X**
Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Loaders, Overhead Under 6 Yards	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Loaders, Plant Feed	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Loaders: Elevating Type Belt	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Locomotives, All	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Material Transfer Device	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Mechanics: All (Leadmen - $0.50 per hour over mechanic)	$94.30	**15J**	**11G**	**8X**
Power Equipment Operators	Motor Patrol Graders	$93.36	**15J**	**11G**	**8X**

Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Overhead, bridge type Crane: 20 tons through 44 tons	$91.25	**7A**	**11H**	**8X**
Power Equipment Operators	Overhead, bridge type: 100 tons and over	$92.98	**7A**	**11H**	**8X**
Power Equipment Operators	Overhead, bridge type: 45 tons through 99 tons	$92.08	**7A**	**11H**	**8X**
Power Equipment Operators	Pavement Breaker	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Pile Driver (other Than Crane Mount)	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Plant Oiler - Asphalt, Crusher	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Posthole Digger, Mechanical	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Power Plant	$87.77	**15J**	**11G**	**8X**

Power Equipment Operators	Pumps - Water	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Quad 9, Hd 41, D10 And Over	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Quick Tower: no cab, under 100 feet in height base to boom	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Rigger and Bellman	$86.60	**7A**	**11H**	**8X**
Power Equipment Operators	Rigger/Signal Person, Bellman(Certified)	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators	Rollagon	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Roller, Other Than Plant Mix	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Roto-mill, Roto-grinder	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Saws - Concrete	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	$92.52	**15J**	**11G**	**8X**

Power Equipment Operators	Scrapers - Concrete & Carry All	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Service Engineers: Equipment	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Shotcrete/Gunite Equipment	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$94.30	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$95.28	**15J**	**11G**	**8X**
Power Equipment Operators	Slipform Pavers	$93.36	**15J**	**11G**	**8X**

Power Equipment Operators	Spreader, Topsider & Screedman	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Subgrader Trimmer	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Tower Bucket Elevators	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Tower Crane: over 175' through 250' in height, base to boom	$93.95	**7A**	**11H**	**8X**
Power Equipment Operators	Tower crane: up to 175' in height base to boom	$92.98	**7A**	**11H**	**8X**
Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	$94.85	**7A**	**11H**	**8X**
Power Equipment Operators	Transporters, All Track Or Truck Type	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Trenching Machines	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators	Truck Crane Oiler/Driver: 100 tons and over	$91.25	**7A**	**11H**	**8X**
Power Equipment Operators	Truck crane oiler/driver: under 100 tons	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators	Truck Mount Portable Conveyor	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators	Vac Truck (Vactor Guzzler, Hydro Excavator)	$92.52	**15J**	**11G**	**8X**

Power Equipment Operators	Welder	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators	Wheel Tractors, Farmall Type	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators	Yo Yo Pay Dozer	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Asphalt Plant Operators	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Assistant Engineer	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Barrier Machine (zipper)	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Batch Plant Operator, Concrete	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Boat Operator	$92.08	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Bobcat	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Brokk - Remote Demolition Equipment	$87.77	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Brooms	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Bump Cutter	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cableways	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Chipper	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Compressor	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Concrete Finish Machine - Laser Screed	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	$93.36	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Conveyors	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes Friction: 200 tons and over	$94.85	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes, A-frame: 10 tons and under	$86.60	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	$92.98	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 20 tons through 44 tons with attachments	$91.25	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	$93.95	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 300 tons and over or 300' of boom including jib with attachments	$94.85	**7A**	**11H**	**8X**
Power Equipment Operators- Underground	Cranes: 45 tons through 99 tons, under 150' of	$92.08	**7A**	**11H**	**8X**

Sewer & Water	boom(including jib with attachments)				
Power Equipment Operators- Underground Sewer & Water	Cranes: Friction cranes through 199 tons	$93.95	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: through 19 tons with attachments, a-frame over 10 tons	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Crusher	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Deck Engineer/Deck Winches (power)	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Derricks, On Building Work	$92.08	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Dozers D-9 & Under	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Drilling Machine	$94.30	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Elevator and man-lift: permanent and shaft type	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Forklift: 3000 lbs and over with attachments	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Forklifts: under 3000 lbs. with attachments	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Gradechecker/Stakeman	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Guardrail Punch	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	$93.36	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Locator	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Operator	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom trucks: 10 tons and under	$86.60	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom trucks: over 10 tons	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Leverman	$95.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loaders, Overhead Under 6 Yards	$92.52	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Loaders, Plant Feed	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loaders: Elevating Type Belt	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Locomotives, All	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Material Transfer Device	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Mechanics: All (Leadmen - $0.50 per hour over mechanic)	$94.30	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Motor Patrol Graders	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	$91.81	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type Crane: 20 tons through 44 tons	$91.25	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type: 100 tons and over	$92.98	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type: 45 tons through 99 tons	$92.08	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Pavement Breaker	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Pile Driver (other Than Crane Mount)	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Posthole Digger, Mechanical	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Power Plant	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Pumps - Water	$87.77	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Quick Tower: no cab, under 100 feet in height base to boom	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Rigger and Bellman	$86.60	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Rigger/Signal Person, Bellman(Certified)	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Rollagon	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Roller, Other Than Plant Mix	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Roto-mill, Roto-grinder	$92.52	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Saws - Concrete	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Scrapers - Concrete & Carry All	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shotcrete/Gunite Equipment	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$94.30	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$95.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Slipform Pavers	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Spreader, Topsider & Screedman	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Subgrader Trimmer	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower Bucket Elevators	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower Crane: over 175' through 250' in height, base to boom	$93.95	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower crane: up to 175' in height base to boom	$92.98	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	$94.85	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Transporters, All Track Or Truck Type	$93.36	**15J**	**11G**	**8X**

Power Equipment Operators- Underground Sewer & Water	Trenching Machines	$91.81	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Truck Crane Oiler/Driver: 100 tons and over	$91.25	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Truck crane oiler/driver: under 100 tons	$90.55	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Truck Mount Portable Conveyor	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Vac Truck (Vactor Guzzler, Hydro Excavator)	$92.52	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Welder	$93.36	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Wheel Tractors, Farmall Type	$87.77	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Yo Yo Pay Dozer	$92.52	**15J**	**11G**	**8X**
Power Line Clearance Tree Trimmers	Journey Level In Charge	$69.62	**5A**	**4A**	

Power Line Clearance Tree Trimmers	Spray Person	$65.89	**5A**	**4A**
Power Line Clearance Tree Trimmers	Tree Equipment Operator	$69.62	**5A**	**4A**
Power Line Clearance Tree Trimmers	Tree Trimmer	$62.19	**5A**	**4A**
Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	$45.93	**5A**	**4A**
Refrigeration & Air Conditioning Mechanics	Journey Level	$100.71	**5A**	**1G**
Residential Brick Mason	Journey Level	$22.73		**1**
Residential Carpenters	Journey Level	$37.17		**1**
Residential Cement Masons	Journey Level	$81.36	**15J**	**4U**
Residential Drywall Applicators	Journey Level	$51.52	**15J**	**4C**
Residential Drywall Tapers	Journey Level	$81.31	**5P**	**1E**
Residential Electricians	Journey Level	$48.80		**1**
Residential Glaziers	Journey Level	$33.75		**1**
Residential Insulation Applicators	Journey Level	$37.07		**1**
Residential Laborers	Journey Level	$28.78		**1**
Residential Marble Setters	Journey Level	$39.71		**1**

Residential Painters	Journey Level	$30.60		**1**
Residential Plumbers & Pipefitters	Journey Level	$51.38		**1**
Residential Refrigeration & Air Conditioning Mechanics	Journey Level	$107.92	**7F**	**1E**
Residential Sheet Metal Workers	Journey Level	$107.92	**7F**	**1E**
Residential Soft Floor Layers	Journey Level	$49.91	**15J**	**4C**
Residential Sprinkler Fitters (Fire Protection)	Journey Level	$61.85		**1**
Residential Stone Masons	Journey Level	$39.71		**1**
Residential Terrazzo Workers	Journey Level	$17.13		**1**
Residential Terrazzo/Tile Finishers	Journey Level	$27.90		**1**
Residential Tile Setters	Journey Level	$21.38		**1**
Roofers	Journey Level	$70.70	**5A**	**3H**
Roofers	Using Irritable Bituminous Materials	$74.15	**5A**	**3H**
Sheet Metal Workers	Journey Level (Field or Shop)	$107.92	**7F**	**1E**

Shipbuilding & Ship Repair	New Construction Boilermaker	$61.07	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Carpenter	$51.85	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Crane Operator	$44.29	**7V**	**1**
Shipbuilding & Ship Repair	New Construction Electrician	$61.12	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	$96.42	**15H**	**11C**
Shipbuilding & Ship Repair	New Construction Laborer	$60.73	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Machinist	$60.93	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Operating Engineer	$44.29	**7V**	**1**
Shipbuilding & Ship Repair	New Construction Painter	$60.93	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Pipefitter	$61.21	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Rigger	$61.07	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Sheet Metal	$60.94	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Shipwright	$51.85	**7X**	**4J**

Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	$44.29	**7V**	**1**
Shipbuilding & Ship Repair	New Construction Welder / Burner	$61.07	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Boilermaker	$61.07	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Carpenter	$51.85	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Crane Operator	$45.06	**7Y**	**4K**
Shipbuilding & Ship Repair	Ship Repair Electrician	$61.12	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	$96.42	**15H**	**11C**
Shipbuilding & Ship Repair	Ship Repair Laborer	$60.73	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Machinist	$60.93	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Operating Engineer	$45.06	**7Y**	**4K**
Shipbuilding & Ship Repair	Ship Repair Painter	$60.93	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Pipefitter	$61.21	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Rigger	$61.07	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Sheet Metal	$60.94	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Shipwright	$51.85	**7X**	**4J**

Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	$45.06	**7Y**	**4K**	
Sign Makers & Installers (Electrical)	Sign Installer	$26.56		**1**	
Sign Makers & Installers (Electrical)	Sign Maker	$20.50		**1**	
Sign Makers & Installers (Non-Electrical)	Sign Installer	$22.56		**1**	
Sign Makers & Installers (Non-Electrical)	Sign Maker	$20.50		**1**	
Soft Floor Layers	Journey Level	$63.29	**15J**	**4C**	
Solar Controls For Windows	Journey Level	$17.13		**1**	
Sprinkler Fitters (Fire Protection)	Journey Level	$104.44	**5C**	**1X**	
Stage Rigging Mechanics (Non Structural)	Journey Level	$17.13		**1**	
Stone Masons	Journey Level	$76.07	**7E**	**1N**	
Street And Parking Lot Sweeper Workers	Journey Level	$17.13		**1**	
Surveyors	Assistant Construction Site Surveyor	$90.55	**7A**	**11H**	**8X**
Surveyors	Chainman	$86.60	**7A**	**11H**	**8X**

Surveyors	Construction Site Surveyor	$92.08	**7A**	**11H**	**8X**
Surveyors	Drone Operator (when used in conjunction with survey work only)	$86.60	**7A**	**11H**	**8X**
Surveyors	Ground Penetrating Radar Operator	$86.60	**7A**	**11H**	**8X**
Telecommunication Technicians	Telecom Technician Journey Level	$62.05	**5B**	**1B**	
Telephone Line Construction - Outside	Cable Splicer	$42.62	**5A**	**2B**	
Telephone Line Construction - Outside	Hole Digger/Ground Person	$27.97	**5A**	**2B**	
Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	$35.60	**5A**	**2B**	
Telephone Line Construction - Outside	Telephone Lineperson	$40.28	**5A**	**2B**	
Terrazzo Workers	Journey Level	$70.61	**7E**	**1N**	
Tile Setters	Journey Level	$68.61	**7E**	**1N**	
Tile, Marble & Terrazzo Finishers	Finisher	$59.44	**7E**	**1N**	
Traffic Control Stripers	All cleanup required in connection with traffic control stripers work (Group 1)	$95.41	**15L**	**1K**	

Traffic Control Stripers	Handling, painting and installing of all car stops, stop signs and any other type sign (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Installation of guard rail and posts and similar protective devices (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Installation of parking gates, ticket spitters and other mechanical and automatic control devices (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Installation of plastic metal or composition button, or lines used instead of paint (Group 1)	$95.41	**15L**	**1K**
Traffic Control Stripers	Line removal; chemical sand and hydro-blast, paint and button (Group 1)	$95.41	**15L**	**1K**
Traffic Control Stripers	Manufacturing and installation of all car stops and control devices and similar traffic regulators (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Manufacturing, painting, stenciling, servicing, repairing, placing and removal of traffic safety	$62.69	**15L**	**1K**

	and control devices/barricades (Group 2)				
Traffic Control Stripers	Painting and installing lines, arrows, bumpers, curbs, etc., on parking lots, air fields, highways, game courts (Group 1)	$95.41	**15L**	**1K**	
Traffic Control Stripers	Preparation and maintenance of all surfaces (Group 1)	$95.41	**15L**	**1K**	
Traffic Control Stripers	Seal coating, slurry coating and other surface protection (Group 2)	$62.69	**15L**	**1K**	
Truck Drivers	Asphalt Mix Over 16 Yards	$82.95	**15J**	**11M**	**8L**
Truck Drivers	Asphalt Mix To 16 Yards	$82.11	**15J**	**11M**	**8L**
Truck Drivers	Dump Truck	$82.11	**15J**	**11M**	**8L**
Truck Drivers	Dump Truck & Trailer	$82.95	**15J**	**11M**	**8L**
Truck Drivers	Other Trucks	$82.95	**15J**	**11M**	**8L**
Truck Drivers - Ready Mix	Transit Mix	$82.95	**15J**	**11M**	**8L**
Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	$17.13		**1**	
Well Drillers & Irrigation Pump Installers	Oiler	$17.13		**1**	

Well Drillers & Irrigation Pump Installers	Well Driller	$19.01	**1**

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Overtime Codes

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

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

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

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

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

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

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

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

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

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

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

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

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

Overtime Codes Continued

1. N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.

X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.

Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.

Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

Overtime Codes Continued

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

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

   F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

   M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

   R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

   U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

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

   F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

   H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.

   J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Overtime Codes Continued

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

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage

C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:
On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

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

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.

S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus $2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).

U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

   The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

   When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

   When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

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

   B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

   C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

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

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

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

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

Overtime Codes Continued

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

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.

H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.

J. All hours worked on holidays shall be paid at double the hourly rate of wage.

K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.

L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar ($2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

Overtime Codes Continued

11. M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.

Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars ($2.00) per hour.

N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.

Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.

O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Overtime Codes Continued

11. P. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Q. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 35% over the hourly rate of wage. Work performed on Sundays shall be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.

R On Monday through Saturday hours worked outside 6:00 am and 7:00 pm, and all hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

When a holiday falls on a Saturday, the Friday before shall be the observed holiday. When a holiday falls on a Sunday, the following Monday shall be the observed holiday.

S. The first ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions, or other conditions beyond the control of the Employer, then Saturday may be worked at the straight time rate, for the first eight (8) hours, or the first ten (10) hours when a four day ten hour workweek has been established.

All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

11. T. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

U. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

If, due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a Special Shift may be worked, Monday through Friday, at the straight-time rate. The starting time of work for the Special Shift will be arranged to fit such conditions of work. Such Special Shift shall consist of eight (8) hours of work for eight (8) hours of pay or ten (10) hours of work for ten(10) hours of pay on a four-ten workday schedule.

V. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

W. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 6 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and Holidays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).

C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).

H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).

I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).

L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).

N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.

Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).

S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

Holiday Codes Continued

6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).

H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).

T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

Holiday Codes Continued

7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

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

C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

7. G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

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

L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.

Holiday Codes Continued

7. X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.

Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

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

L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

Holiday Codes Continued

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

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

P. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Note Codes

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

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

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

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

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

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

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

Note Codes Continued

8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

   Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

   Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

   W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.

   X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50. Special Shift Premium: Basic hourly rate plus $2.00 per hour.

   When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

   Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

   Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

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

   Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Note Codes Continued

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

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130’ to 199’ – $0.50 per hour over their classification rate.
(B) – 200’ to 299’ – $0.80 per hour over their classification rate.
(C) – 300’ and over – $1.00 per hour over their classification rate.

B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

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

D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

Note Codes Continued

9. F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

I. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

Employees may be required to perform any combination of work within the Diving team/crew, (with the exception of dive Supervisor) provided they are paid at the highest rate at which he/she has worked for the shift.

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

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

M. Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $1.50 per hour above their classification rate.

Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Benefit Code Key

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Overtime Codes

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

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

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

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

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

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

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

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

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

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

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

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

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

Overtime Codes Continued

1. N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.

X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.

Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.

Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

Overtime Codes Continued

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

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

   F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

   M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

   R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

   U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

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

   F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

   H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.

   J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Overtime Codes Continued

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

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage

C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:
On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

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

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.

S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus $2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).

U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

   The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

   When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

   When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

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

   B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

   C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

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

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

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

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

Overtime Codes Continued

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

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.

H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.

J. All hours worked on holidays shall be paid at double the hourly rate of wage.

K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.

L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar ($2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

Overtime Codes Continued

11. M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.

Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars ($2.00) per hour.

N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.

Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.

O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Overtime Codes Continued

11. P. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Q. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 35% over the hourly rate of wage. Work performed on Sundays shall be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.

R On Monday through Saturday hours worked outside 6:00 am and 7:00 pm, and all hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

When a holiday falls on a Saturday, the Friday before shall be the observed holiday. When a holiday falls on a Sunday, the following Monday shall be the observed holiday.

S. The first ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions, or other conditions beyond the control of the Employer, then Saturday may be worked at the straight time rate, for the first eight (8) hours, or the first ten (10) hours when a four day ten hour workweek has been established.

All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

11. T. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

U. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

If, due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a Special Shift may be worked, Monday through Friday, at the straight-time rate. The starting time of work for the Special Shift will be arranged to fit such conditions of work. Such Special Shift shall consist of eight (8) hours of work for eight (8) hours of pay or ten (10) hours of work for ten(10) hours of pay on a four-ten workday schedule.

V. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

W. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 6 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and Holidays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).

C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).

H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).

I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).

L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).

N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.

Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).

S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

Holiday Codes Continued

6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).

H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).

T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

Holiday Codes Continued

7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

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

C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

7. G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

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

L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.

Holiday Codes Continued

7. X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.

Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

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

L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

Holiday Codes Continued

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

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

P. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Note Codes

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

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

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

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

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

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

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

Note Codes Continued

8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

   Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

   Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

   W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.

   X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50. Special Shift Premium: Basic hourly rate plus $2.00 per hour.

   When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

   Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

   Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

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

   Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Note Codes Continued

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

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130’ to 199’ – $0.50 per hour over their classification rate.
(B) – 200’ to 299’ – $0.80 per hour over their classification rate.
(C) – 300’ and over – $1.00 per hour over their classification rate.

B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

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

D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

Note Codes Continued

9. F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

I. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

Employees may be required to perform any combination of work within the Diving team/crew, (with the exception of dive Supervisor) provided they are paid at the highest rate at which he/she has worked for the shift.

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

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

M. Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $1.50 per hour above their classification rate.

Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

FHWA-1273

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Appendix C

Permits

US Army Corps of Engineers
Seattle District

NATIONWIDE PERMIT 14
Terms and Conditions

2021 NWPs - Final 41; Effective Date: February 25, 2022
amended with RGCs 10-14 June 28, 2024

A. Description of Authorized Activities
B. U.S. Army Corps of Engineers (Corps) National General Conditions for All Final 41 NWPs
C. Seattle District Regional General Conditions
D. Seattle District Regional Specific Conditions for this Nationwide Permit (NWP)
E. 401 Water Quality Certification (401 WQC) for this NWP
F. Coastal Zone Management Consistency Response for this NWP

In addition to any special condition that may be required on a case-by-case basis by the District Engineer, the following terms and conditions must be met, as applicable, for a Nationwide Permit (NWP) authorization to be valid in Washington State.

A. DESCRIPTION OF AUTHORIZED ACTIVITIES

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

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

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

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

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

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

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

B. CORPS NATIONAL GENERAL CONDITIONS FOR ALL 2021 NWPs - FINAL 41

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has

determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the

Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation

Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the

designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United

States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:
(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.
(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____
(Transferee)

_____
(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30

day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity’s compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity’s adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

C. SEATTLE DISTRICT REGIONAL GENERAL CONDITIONS: The following conditions apply to the 2021 NWPs - Final 41 NWPs for the Seattle District in Washington State, as applicable.

RGC 1, Project Drawings
Drawings must be submitted with a pre-construction notification (PCN). Drawings must provide a clear understanding of the proposed project, and how waters of the United States will be affected. Drawings must be originals and not reduced copies of large-scale plans. Engineering drawings are not required. Existing and proposed site conditions (manmade and landscape features) must be drawn to scale.

RGC 2, Aquatic Resources Requiring Special Protection
A PCN is required for activities resulting in a loss of waters of the United States in wetlands in dunal systems along the Washington coast, mature forested wetlands, bogs and peatlands, aspen-dominated wetlands, alkali wetlands, vernal pools, camas prairie wetlands, estuarine wetlands, and wetlands in coastal lagoons.

RGC 3, New Bank Stabilization in Tidal Waters of Puget Sound
Activities involving new bank stabilization in tidal waters in Water Resource Inventory Areas (WRIAs) 8, 9, 10, 11, and 12 (within the areas identified on Figures 1a through 1e) cannot be authorized by NWP.

RGC 4, Commencement Bay

No permanent losses of wetlands or mudflats within the Commencement Bay Study Area may be authorized by any NWP (see Figure 2).

RGC 5, Bank Stabilization
All projects including new or maintenance bank stabilization activities in waters of the United States where salmonid species are present or could be present, requires PCN to the U.S. Army Corps of Engineers (Corps) (see NWP general condition 32).

For new bank stabilization projects only, the following must be submitted to the Corps:

a. The cause of the erosion and the distance of any existing structures from the area(s) being stabilized.

b. The type and length of existing bank stabilization within 300 feet of the proposed project.

c. A description of current conditions and expected post-project conditions in the waterbody.

d. A statement describing how the project incorporates elements avoiding and minimizing adverse environmental effects to the aquatic environment and nearshore riparian area, including vegetation impacts in the waterbody.

In addition to a. through d., the results from any relevant geotechnical investigations can be submitted with the PCN if it describes current or expected conditions in the waterbody.

RGC 6, Crossings of Waters of the United States
Any project including installing, replacing, or modifying crossings of waters of the United States, such as culverts or bridges, requires submittal of a PCN to the U.S. Army Corps of Engineers (see NWP general condition 32).

If a culvert is proposed to cross waters of the U.S. where salmonid species are present or could be present, the project must apply the stream simulation design method from the Washington Department of Fish and Wildlife located in the Water Crossing Design Guidelines (2013), or a design method which provides passage at all life stages at all flows where the salmonid species would naturally seek passage. If the stream simulation design method is not applied for a culvert where salmonid species are present or could be present, the applicant must provide a rationale in the PCN sufficient to establish one of the following:

a. The existence of extraordinary site conditions.

b. How the proposed design will provide equivalent or better fish passage and fisheries habitat benefits than the stream simulation design method.

Culverts installed under emergency authorization that do not meet the above design criteria will be required to meet the above design criteria to receive an after-the-fact nationwide permit verification.

RGC 7, Stream Loss
A PCN is required for all activities that result in the loss of any linear feet of streams.

RGC 8, Construction Boundaries
Permittees must clearly mark all construction area boundaries within waters of the United States before beginning work on projects that involve grading or placement of fill. Boundary markers and/or construction fencing must be maintained and clearly visible for the duration of construction. Permittees should avoid and minimize removal of native vegetation (including submerged aquatic vegetation) to the maximum extent possible.

RGC 9, ESA Reporting to NMFS

For any nationwide permit that may affect threatened or endangered species:

Incidents where any individuals of fish species, marine mammals and/or sea turtles listed by National Oceanic and Atmospheric Administration Fisheries, National Marine Fisheries Service (NMFS) under the Endangered Species Act appear to be injured or killed as a result of discharges of dredged or fill material into waters of the U.S. or structures or work in navigable waters of the U.S. authorized by this Nationwide Permit verification shall be reported to NMFS, Office of Protected Resources at (301) 713-1401 and the Regulatory Office of the Seattle District of the U.S. Army Corps of Engineers at (206) 764-3495. The finder should leave the animal alone, make note of any circumstances likely causing the death or injury, note the location and number of individuals involved and, if possible, take photographs. Adult animals should not be disturbed unless circumstances arise where they are obviously injured or killed by discharge exposure or some unnatural cause. The finder may be asked to carry out instructions provided by the NMFS to collect specimens or take other measures to ensure that evidence intrinsic to the specimen is preserved.

RGC 10, Limitations on New Bank Stabilization Within the Salish Sea
The length of new bank stabilization within waters of the U.S., including new bank stabilization associated with maintenance activities that would expand previously authorized armoring length, cannot exceed 50 linear feet within the Salish Sea under any NWP.

RGC 11, Effects to Forage Fish Spawning Beaches, Drift Cells, and Feeder Bluffs)
No NWP activity can:

a. cause more than minimal adverse effects to forage fish spawning beaches or drift cells; or

b. prevent the functioning of feeder bluffs, including more than minimal adverse effects to sediment recruitment, transport, or deposition.

This regional general condition applies to all NWP activities within the Salish Sea. Information regarding the location of forage fish spawning beaches is available on the Washington Department of Fish and Wildlife's (WDFW) Forage Fish Spawning Map at https://wdfw.maps.arcgis.com/home/webmap/viewer.html?webmap=19b8f74e2d41470cbd80b1af8dedd6b3. Information regarding the location and movement of drift cells, shoreline stability, and coastal landforms, to include feeder bluffs, is available at the Washington State Department of Ecology's Coastal Atlas Map website: https://apps.ecology.wa.gov/coastalatlasmap. These maps are resources that can be used to help identify the location of forage fish spawning beaches, drift cells, and feeder bluffs; they are not a substitute for site-specific data. Information about forage fish, their spawning habitats, and spawning behavior are available through the WDFW. Additional information about the importance of these species as prey species for Endangered Species Act listed salmonids can be found on the National Marine Fisheries Service website.

RGC 12, Bank Stabilization Design Considerations
Bank stabilization activities, including maintenance activities, shall utilize living shorelines, vegetative stabilization, bioengineering, including but not limited to large woody material with intact root wads, and other soft bank stabilization approaches to the maximum practicable extent before considering hard bank stabilization methods such as bulkheads and rock revetments.

RGC 13, PCNs for Activities in Areas Where There May Be Treaty-Reserved Tribal Rights
To ensure compliance with General Condition 17, Tribal Rights, a pre-construction notification (PCN) is required for all NWPs associated with structures or fills in areas where Tribes have retained via treaty the right to fish in their usual and accustomed grounds and stations.

RGC 14, Maintenance of Existing Bank Stabilization Structures and Fills
(Applicable to NWP 3, Maintenance Activities) Maintenance of existing bank stabilization structures that expand the existing structure's footprint or dimensions either waterward, vertically, or linearly along the shoreline within the geographic jurisdiction of the U.S. Army Corps of Engineers are not eligible for NWP 3.

D. SEATTLE DISTRICT REGIONAL SPECIFIC CONDITIONS FOR THIS NWP:

NWP 14 Specific Regional Conditions:
1. A pre-construction notification must be submitted to the district engineer (see NWP general condition 32) for linear transportation project crossings in tidal waters.

E. 401 WATER QUALITY CERTIFICATION: Depending on the geographic region of the work authorized by this verification, the appropriate 401 certifying authority has made the following determinations:

Washington Department of Ecology (Ecology) (Projects in all areas except as described for the other certifying agencies listed below): General and Specific WQC Conditions

A. State General Conditions for all Nationwide Permits

In addition to all of the U.S. Army Corps of Engineers' (Corps) national and Seattle District'sregional permit conditions, the following state general Water Quality Certification (WQC) conditions **apply to all NWPs whether granted or granted with conditions** in Washington where Ecology is the certifying authority.

Due to the lack of site specific information on the discharge types, quantities, and specific locations, as well as the condition of receiving waters and the quantity of waters (including wetlands) that may be lost, Ecology may need to review the project if one of the following stategeneral conditions is triggered.

This case-by-case review may be required, and additional information regarding the project and associated discharges may be needed, to verify that the proposed project would comply with state water quality requirements and if an individual WQC is required or if the project meets this programmatic WQC.

1. **In-water construction activities**. Ecology WQC review is required for projects or activities authorized under NWPs where the project proponent has indicated on the Joint Aquatic Resource Permit Application (JARPA) question 9e that the project or activity will not meet State water quality standards, or has provided information indicating that the project or activity will cause, or may be likely to cause or contributeto an exceedance of a State water quality standard (Chapter 173-201A WAC) or sediment management standard (Chapter 173-204 WAC).

Note: In-water activities include any activity within a jurisdictional wetland and/orwaters.

2. **Projects or Activities Discharging to Impaired Waters**. Ecology WQC review is required for projects or activities that will occur in a 303(d) listed segment of a waterbody or upstream of a listed segment and may result in further exceedances of the specific listedparameter to determine if the project meets this programmatic WQC or will require individual WQC.

To determine if your project or activity is in a 303(d) listed segment of a waterbody, visitEcology's Water Quality Assessment webpage for maps and search tools.

3. **Aquatic resources requiring special protection**. Certain aquatic resources are unique and difficult-to-replace components of the aquatic environment in Washington. Activities that would affect these resources must be avoided to the greatest extent practicable. Compensating for adverse impacts to high value aquatic resources is typically difficult, prohibitively expensive, and may not be possible in some landscapesettings.

Ecology WQC review is required for projects or activities in areas identified below to determine if the project meets this programmatic WQC or will require individual WQC.

a. Activities in or affecting the following aquatic resources:

i. Wetlands with special characteristics (as defined in the Washington State Wetland Rating Systems for western and eastern Washington, Ecology Publications #14-06-029 and #14-06-030):
   - Estuarine wetlands.
   - Wetlands of High Conservation Value.
   - Bogs.
   - Old-growth forested wetlands and mature forested wetlands.
   - Wetlands in coastal lagoons.
   - Wetlands in dunal systems along the Washington coast.
   - Vernal pools.
   - Alkali wetlands.

ii. Fens, aspen-dominated wetlands, camas prairie wetlands.

iii. Category I wetlands.

iv. Category II wetlands with a habitat score ≥ 8 points.

b. Activities in or resulting in a loss of eelgrass (Zostera marina) beds.

This state general condition does not apply to the following NWPs:
NWP 20 – Response Operations for Oil and Hazardous Substances
NWP 32 – Completed Enforcement Actions
NWP 48 – Commercial Shellfish Mariculture Activities

4. **Loss of More than 300 Linear Feet of Streambed.** For any project that results in the lossof more than 300 linear feet of streambed Ecology WQC review is required to determineif the project meets this programmatic WQC or will require individual WQC.

5. **Temporary Fills.** For any project or activity with temporary fill in wetlands or other waters for more than six months Ecology WQC review is required to determine if theproject meets this programmatic WQC or will require individual WQC.

6. **Mitigation.** Project proponents are required to show that they have followed the mitigation sequence and have first avoided and minimized impacts to aquatic resourceswherever practicable. For projects requiring Ecology WQC review or an individual WQC with unavoidable impacts to aquatics resources, a mitigation plan must be provided.

   a. Wetland mitigation plans submitted for Ecology review and approval shall be based on the most current guidance provided in Wetland Mitigation in Washington State, Parts 1 and 2 (available on Ecology's website) and shall, at aminimum, include the following:

      i. A description of the measures taken to avoid and minimize impacts to wetlands and other waters of the U.S.

      ii. The nature of the proposed impacts (i.e., acreage of wetlands and functions lost or degraded).

      iii. The rationale for the mitigation site that was selected.

      iv. The goals and objectives of the compensatory mitigation project.

v. How the mitigation project will be accomplished, including construction sequencing, best management practices to protect water quality, proposed performance standards for measuring success and the proposed buffer widths.

vi. How it will be maintained and monitored to assess progress toward goals and objectives. Monitoring will generally be required for a minimum of five years. For forested and scrub-shrub wetlands, 10 years of monitoring will often be necessary.

vii. How the compensatory mitigation site will be legally protected for the long term.

Refer to Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Ecology Publication #06-06-011b) and Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology Publications #09-06-032 (Western Washington) and #10-06-007 (Eastern Washington)) for guidance on selecting suitable mitigation sites and developing mitigation plans.

Ecology encourages the use of alternative mitigation approaches, includingcredit/debit methodology, advance mitigation, and other programmatic approaches such as mitigation banks and in-lieu fee programs. If you are interested in proposing use of an alternative mitigation approach, consult with the appropriate Ecology regional staff person. Information on alternative mitigation approaches is available on Ecology's website.

b. Mitigation for other aquatic resource impacts will be determined on a case-by-case basis.

7. **Stormwater Pollution Prevention**. All projects involving land disturbance or impervious surfaces must implement stormwater pollution prevention or control measures to avoiddischarge of pollutants in stormwater runoff to waters.

a. For land disturbances during construction, the applicant must obtain and implement permits (e.g., Construction Stormwater General Permit) where required and follow Ecology's current stormwater manual.

b. Following construction, prevention or treatment of on-going stormwater runofffrom impervious surfaces shall be provided.

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

8. **Application**. For projects or activities that will require Ecology WQC review, or anindividual WQC, project proponents must provide Ecology with a JARPA or the equivalent information, along with the documentation provided to the Corps, as described in national general condition 32, Pre-Construction Notification (PCN), including, where applicable:

a. A description of the project, including site plans, project purpose, direct and indirect adverse environmental effects the project discharge(s) would cause, best management practices (BMPs), and proposed means to monitor the discharge(s).

b. List of all federal, state or local agency authorizations required to be used for anypart of the proposed project or any related activity.

c. Drawings indicating the OHWM, delineation of special aquatic sites, and other waters of

the state. Wetland delineations must be prepared in accordance with thecurrent method required by the Corps and shall include Ecology's Wetland Rating form. Wetland Rating forms are subject to review and verification by Ecology staff.

Guidance for determining the OHWM is available on Ecology's website.

d. A statement describing how the mitigation requirement will be satisfied. A conceptual or detailed mitigation or restoration plan may be submitted. See stategeneral condition 5.

e. Other applicable requirements of Corps NWP general condition 32, Corps regional conditions, or notification conditions of the applicable NWP.

Ecology **grants with conditions Water Quality Certification** (WQC) for this NWP provided that Ecology individual WQC review is not required per the state general conditions (see above) and the following conditions:

1. Ecology WQC review is required if the project or activity is in a known contaminatedor cleanup site to determine if an individual WQC is required or the project meets the programmatic WQC for this NWP.

2. Ecology individual WQC is required for projects or activities authorized under thisNWP if:
    a. The project or activity impacts more than 1/3 acre of waters; or

    b. This NWP is authorized in conjunction with any other NWP.

Environmental Protection Agency (EPA) (on Tribal Lands where Tribes Do Not Have Treatment in a Similar Manner as a State and Lands with Exclusive Federal Jurisdiction in Washington):

On behalf of the 28 tribes that do not have treatment in a similar manner as a state and for exclusive federal jurisdiction lands located within the state of Washington, EPA Region 10 has determined that CWA Section 401 WQC for the following proposed NWPs is granted with conditions. EPA Region 10 has determined that any discharge authorized under the following proposed NWPs will comply with water quality requirements, as defined at 40 C.F.R. § 121.1(n), subject to the following conditions pursuant to CWA Section 401(d).

General Conditions:

EPA General Condition 1 – Aquatic Resources of Special Concern

Activities resulting in a point source discharge in the following types of aquatic resources of special concern shall request an individual project-specific CWA Section 401 WQC: mature forested wetlands; bogs, fens and other peatlands; vernal pools; aspen-dominated wetlands; alkali wetlands; camas prairie wetlands; wetlands in dunal systems along the Oregon or Washington Coast; riffle-pool complexes of streams; marine or estuarine mud-flats; salt marshes; marine waters with native eelgrass or kelp beds; or marine nearshore forage fish habitat. To identify whether a project would occur in any of these aquatic resources of special concern, project proponents shall use existing and available information to identify the location and type of resources, including using the U.S. Fish and Wildlife Service's online digital National Wetland Inventory maps, identifying project location on topographical maps, and/or providing on-site determinations as required by the Corps. When a project requires a Pre-Construction Notification (PCN) to the Corps, project proponents shall work with the Corps to identify whether the project is in any of these specific aquatic resources of special concern.

EPA General Condition 2 – Soil Erosion and Sediment Controls

Turbidity shall not exceed background turbidity by more than 50 Nephelometric Turbidity Units (NTU) above background instantaneously or more than 25 NTU above background for more than ten consecutive days.[8] Projects or activities that are expected to exceed these levels require an individual project-specific CWA Section 401 WQC.

The turbidity standard shall be met at the following distances from the discharge:

Wetted Stream Width at Discharge Point	**Approximate Downstream Point to Sample to Determine Compliance**
Up to 30 feet	50 feet
>30 to 100 feet	100 feet
>100 feet to 200 feet	200 feet
>200 feet	300 feet
Lake, Pond, Reservoir	Lesser of 100 feet or maximum surface distance

For Marine Water	**Point of Compliance for Temporary Area of Mixing**
Estuaries or Marine Waters	Radius of 150 feet from the activity causing the turbidity exceedance

Measures to prevent and/or reduce turbidity shall be implemented and monitored prior to, during, and after construction. Turbidity monitoring shall be done at the point of compliance within 24 hours of a precipitation event of 0.25 inches or greater. During monitoring and maintenance, if turbidity limits are exceeded or if measures are identified as ineffective, then additional measures shall be taken to come into compliance and EPA shall be notified within 48 hours of the exceedance or measure failure.

EPA General Condition 3 - Compliance with Stormwater Pollution Prevention and the National Pollutant Discharge Elimination System Permit Provisions

For land disturbances during construction that 1) disturb one or more acres of land, or 2) will disturb less than one acre of land but are part of a common plan of development or sale that will ultimately disturb one or more acres of land, the permittee shall obtain and implement Construction Stormwater General Permit requirements,[9] including:

1. The permittee shall develop a Stormwater Pollution Prevention Plan (SWPPP)[10] and submit it to EPA Region 10 and appropriate Corps District; and
2. Following construction, prevention or treatment of ongoing stormwater runoff from impervious surfaces that includes soil infiltration shall be implemented.

EPA General Condition 4 – Projects or Activities Discharging to Impaired Waters

Projects or activities are not authorized under the NWPs if the project will involve point source discharges into an active channel (e.g., flowing or open waters) of a water of the U.S. listed as impaired under CWA Section 303(d) and/or if the waterbody has an approved Total Maximum Daily Load (TMDL) and the discharge may result in further exceedance of a specific parameter (e.g., total suspended solids, dissolved oxygen, temperature) for which the waterbody is listed or has an approved TMDL. The current lists of impaired waters of the U.S. under CWA Section 303(d) and waters of the U.S. for which a TMDL has been approved are available on EPA Region 10's web site at: https://www.epa.gov/tmdl/impaired-waters-and-tmdls-region-10.

EPA General Condition 5 – Notice to EPA

All project proponents shall provide notice to EPA Region 10 prior to commencing construction activities authorized by a NWP. This will provide EPA Region 10 with the opportunity to inspect the activity for the purposes of determining whether any discharge from the proposed project will violate this CWA Section 401 WQC. Where the Corps requires a PCN for an applicable NWP, the project proponent shall also provide the PCN to EPA Region 10. EPA Region 10 will provide written notification to the project proponent if the proposed project will violate the water quality certification of the NWP.

EPA General Condition 6 – Unsuitable Materials

The project proponent shall not use wood products treated with leachable chemical components (e.g., copper, arsenic, zinc, creosote, chromium, chloride, fluoride, pentachlorophenol), which result in a discharge to waters of the U.S., unless the wood products meet the following criteria:

1. Wood preservatives and their application shall be in compliance with EPA label requirements and criteria of approved EPA Registration Documents under the Federal Insecticide, Fungicide, and Rodenticide Act;
2. Use of chemically treated wood products shall follow the Western Wood Preservatives Institute (WWPI) guidelines and BMPs to minimize the preservative migrating from treated wood into the aquatic environment;
3. For new or replacement wood structures, the wood shall be sealed with non-toxic products such as water-based silica or soy-based water repellants or sealers to prevent or limit leaching. Acceptable alternatives to chemically treated wood include untreated wood, steel (painted, unpainted or coated with epoxy petroleum compound or plastic), concrete and plastic lumber; and
4. All removal of chemically treated wood products (including pilings) shall follow the most recent "EPA Region 10 Best Management Practices for Piling Removal and Placement in Washington State."

EPA NWP Specific Conditions:

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

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

Specific Tribes with Certifying Authority (Projects in Specific Tribal Areas):
WQC was issued by the Swinomish Indian Tribal Community. WQC was waived by the Confederated Tribes of the Chehalis Reservation and Colville Indian Reservation, Kalispel Tribe of Indians, Port Gamble S'Klallam Tribe, Quinault Indian Nation, and the Spokane Tribe of Indians. WQC was denied by the Lummi Nation, Makah Tribe, Puyallup Tribe of Indians, and the Tulalip Tribes; therefore, individual WQC is required from these tribes.

F. COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY RESPONSE FOR THIS NWP:

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

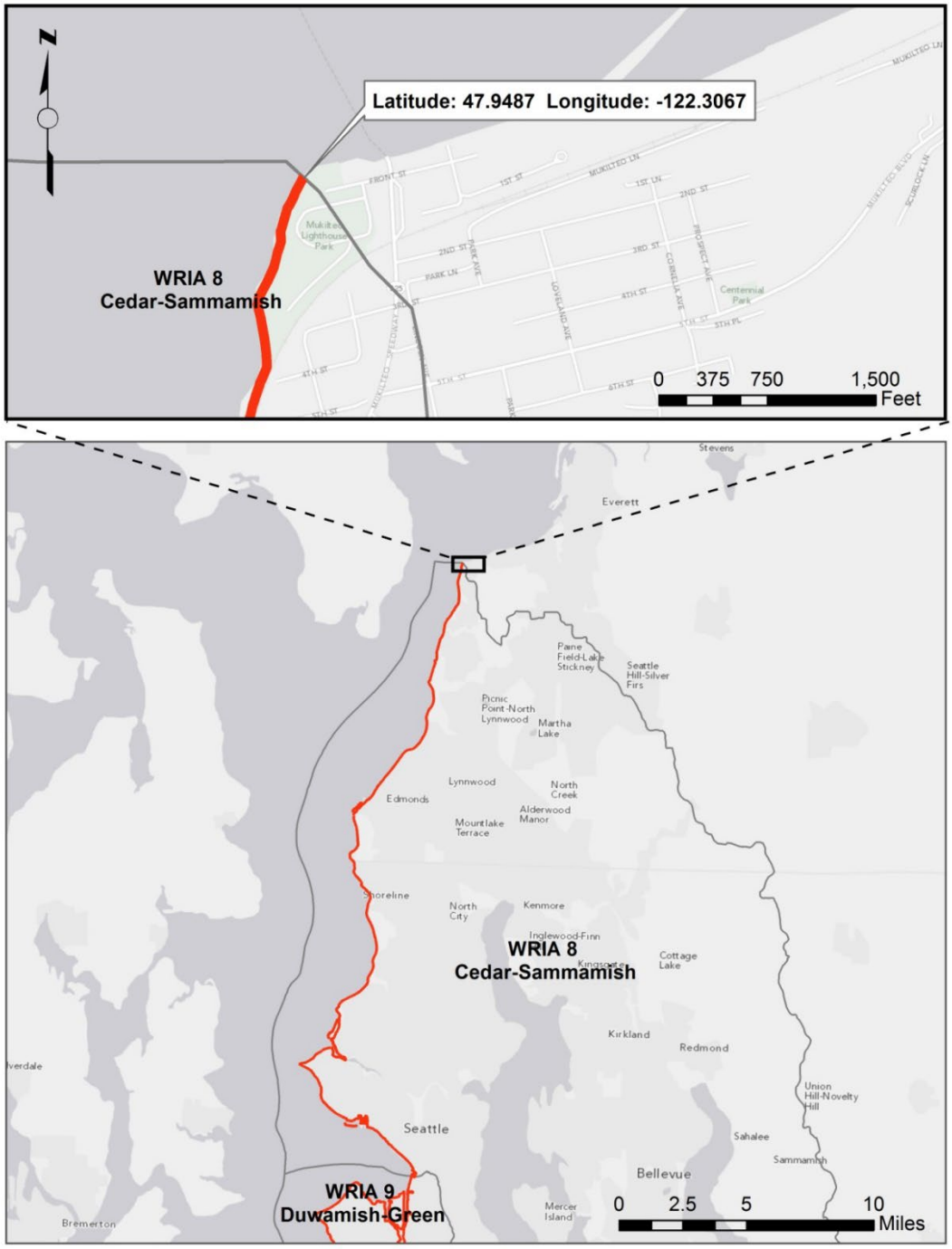
CZM Federal Consistency Response – Concur with Conditions.

1. A CZM Federal Consistency Decision is required for projects or activities under this NWP if a State 401 Water Quality Certification is required.

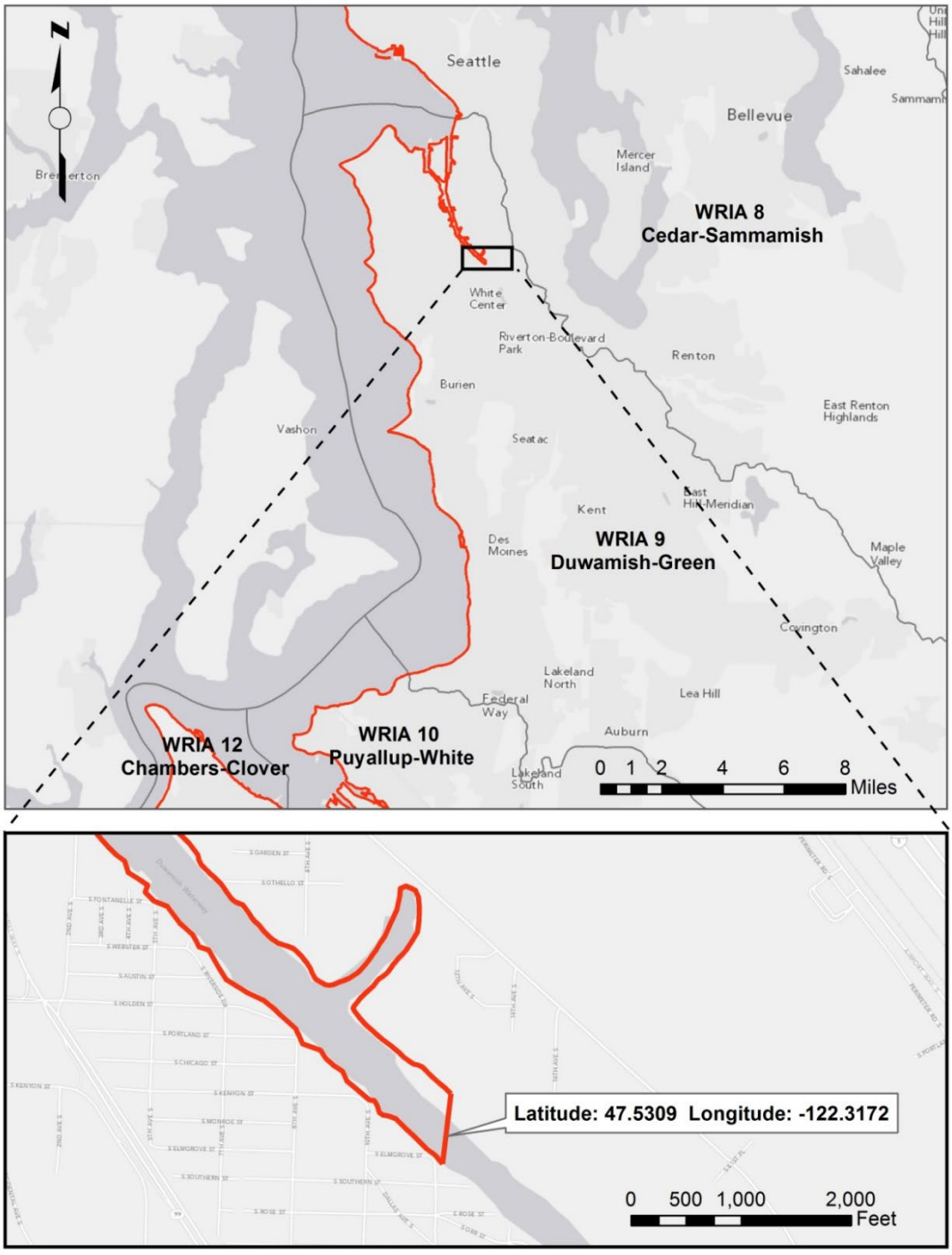
2. A CZM Federal Consistency Decision is required for projects or activities under this NWP if they are pre-empting local or state permit requirements necessary to demonstrate compliance with

the CZMP's enforceable policies.

Seattle District Regional General Conditions - Figures
Figure 1: RGC 3 - WRIAs 8, 9, 10, 11, and 12
a. WRIA 8



b. WRIA 9


N
Seattle
Bellevue
Sahalee
Mercer Island
Bremerton
WRIA 8
Cedar-Sammamish
White Center
Riverton-Boulevard Park
Renton
Burien
East Renton Highlands
Vashon
Seatac
Kent
East Hill-Meridian
Des Moines
WRIA 9
Duwamish-Green
Maple Valley
Covington
Lakeland North
Lea Hill
Federal Way
Auburn
WRIA 12
Chambers-Clover
WRIA 10
Puyallup-White
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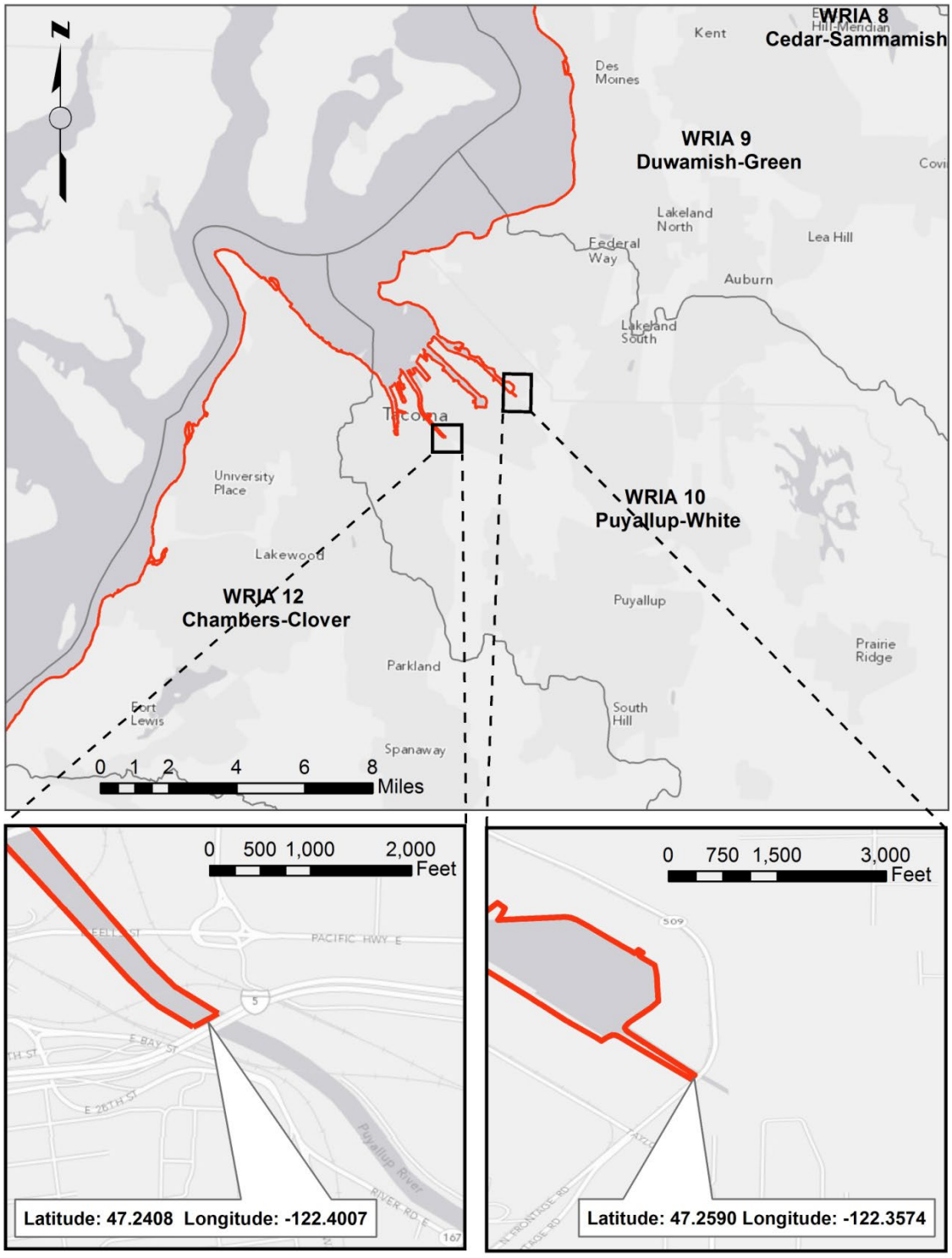
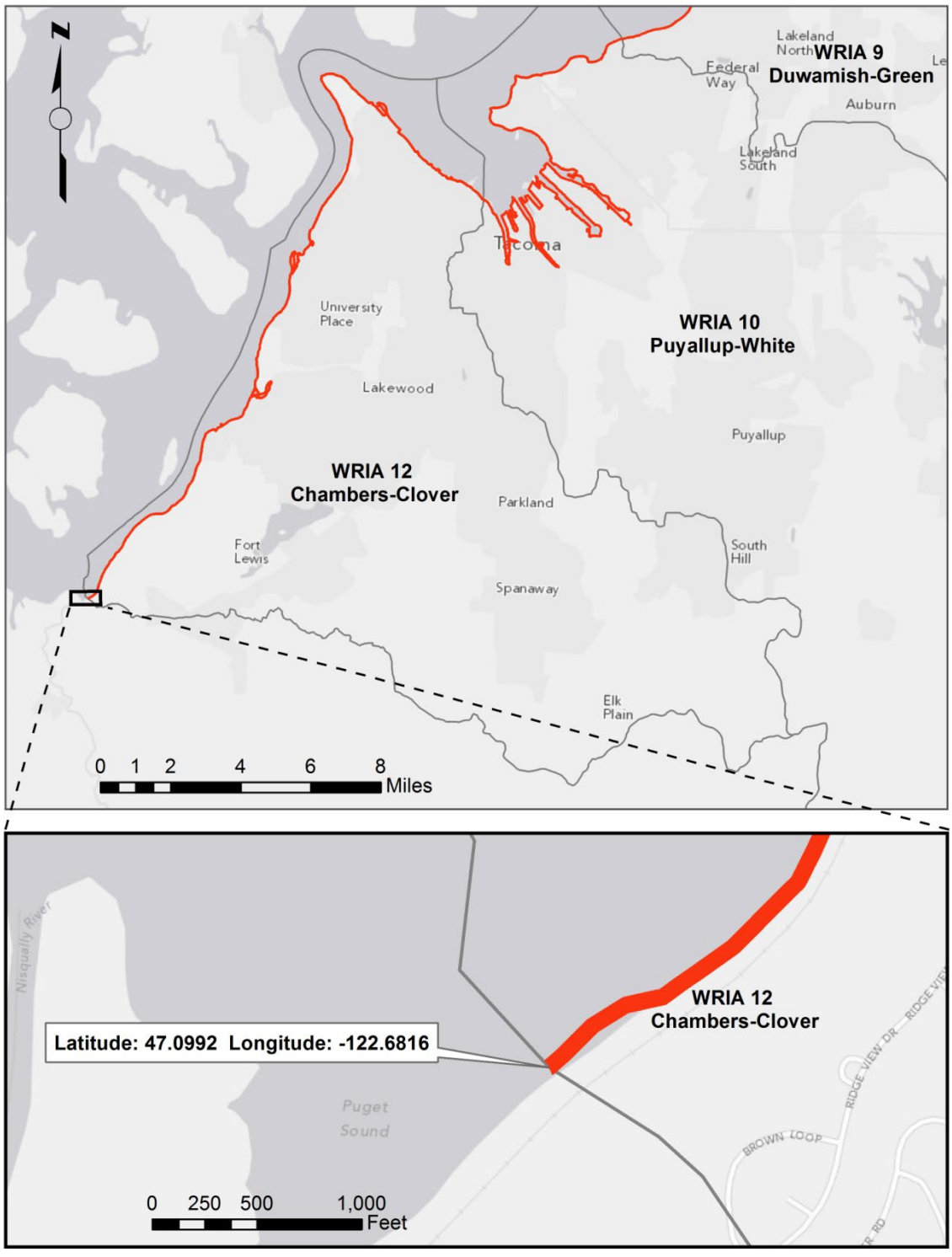
Feet

c. WRIA 10


N
WRIA 8
Cedar-Sammamish
Kent
Des Moines
WRIA 9
Duwamish-Green
Lakeland North
Federal Way
Lea Hill
Auburn
Lakeland South
Tacoma
University Place
WRIA 10
Puyallup-White
Lakewood
WRIA 12
Chambers-Clover
Puyallup
Prairie Ridge
Parkland
Fort Lewis
South Hill
Spanaway
0 1 2 4 6 8 Miles
0 500 1,000 2,000 Feet
PACIFIC HWY E
E BAY ST
E 26TH ST
Puyallup River
RIVER RD E
Latitude: 47.2408 Longitude: -122.4007
0 750 1,500 3,000 Feet
509
Latitude: 47.2590 Longitude: -122.3574

d. WRIA 12


N
Lakeland North
WRIA 9
Duwamish-Green
Federal Way
Auburn
Lakeland South
Tacoma
University Place
WRIA 10
Puyallup-White
Lakewood
Puyallup
WRIA 12
Chambers-Clover
Parkland
Fort Lewis
South Hill
Spanaway
Elk Plain
0 1 2 4 6 8
Miles
Nisqually River
WRIA 12
Chambers-Clover
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Puget Sound
BROWN LOOP
RIDGE VIEW DR
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Feet

e. WRIA 11

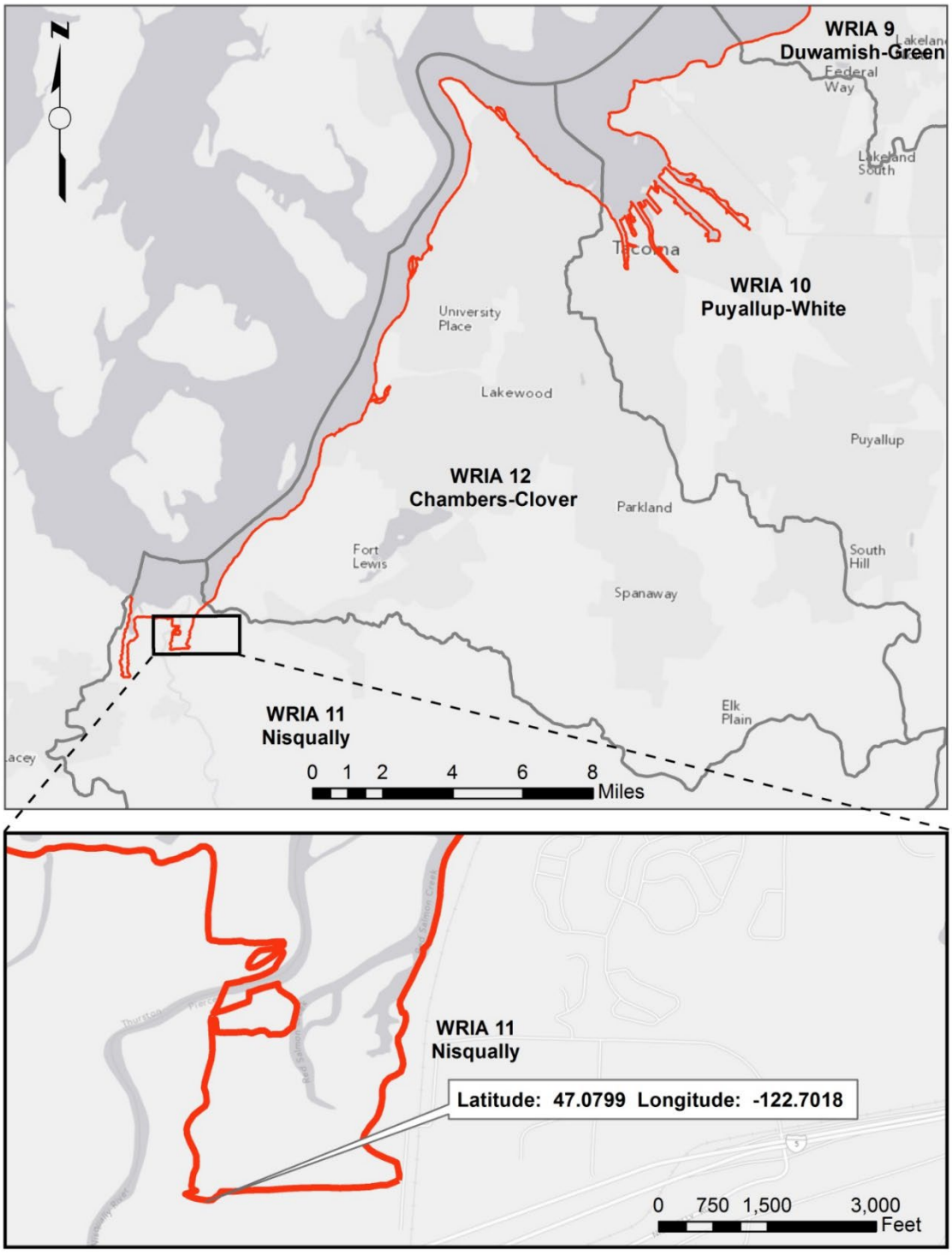
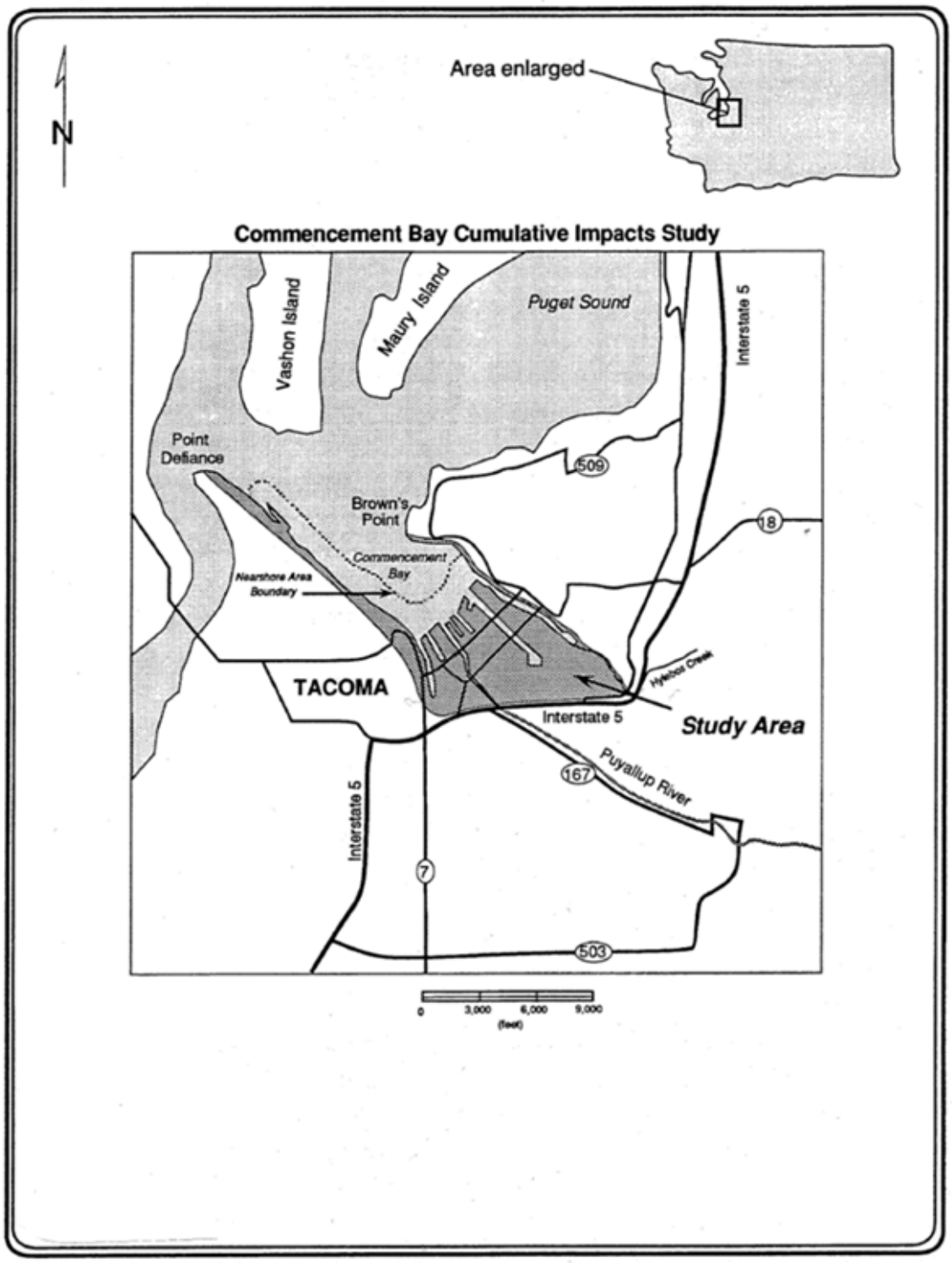

WRIA 9
Duwamish-Green
Federal Way
Lakeland South
Tacoma
WRIA 10
Puyallup-White
University Place
Lakewood
Puyallup
WRIA 12
Chambers-Clover
Parkland
Fort Lewis
South Hill
Spanaway
Elk Plain
Lacey
WRIA 11
Nisqually
0 1 2 4 6 8
Miles
WRIA 11
Nisqually
Latitude: 47.0799 Longitude: -122.7018
0 750 1,500 3,000
Feet

Figure 2. RGC 4 - Commencement Bay Study Area



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
500 Desmond Dr. S.E.
Lacey, Washington 98503

In Reply Refer to:
FWS/R1/2022-0053650

Bryan Mercier
U.S. Department of the Interior
Bureau of Indian Affairs
Attn: Ashton Harp
911 Northeast 11th Avenue
Portland, Oregon 97232

Dear Mr. Mercier:

Subject: Tulalip Tribes, 4th Street and 88th Street Corridor Improvements

This letter is in response to your June 13, 2022, request for our concurrence with your determination that the proposed action in Snohomish County, Washington, "may affect, but is not likely to adversely affect" federally listed species. We received your letter and Biological Assessment (BA), providing information in support of "may affect, not likely to adversely affect" determinations, on June 13, 2022.

Specifically, you requested informal consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq*.) (ESA) for the federally listed species and critical habitat identified below:

Bull trout (*Salvelinus confluentus*)

Oregon spotted frog (*Rana pretiosa*)

Marbled murrelet (*Brachyramphus marmoratus*)

Designated bull trout critical habitat

The Bureau of Indian Affairs has determined that the action will have "no effect" on additional listed species and designated critical habitat that are known to occur in Snohomish County.

The determination(s) of "no effect" to listed resources rests with the action agency. The U.S. Fish and Wildlife Service (Service) has no regulatory or statutory authority for concurring with "no effect" determinations, and no consultation with the Service is required. We recommend that the action agency document their analyses on effects to listed species and maintain that documentation as part of their project file.

Project Description:

The proposed project will include road improvements at the Interstate 5, 4th Street (Exit 199) and 88th Street (Exit 200), interchanges. The project includes constructing seven roundabouts along existing surface streets, channelization improvements entering and exiting roundabouts, improved pedestrian and bicycle access, a 100-foot single span bridge to replace an undersized culvert (Coho Creek at 88th Street), and new stormwater flow control and treatment facilities.

The proposed project includes mitigation for unavoidable impacts to buffers, wetlands restoration, and replanting slopes and disturbed areas (approximately 7,700 square feet). As part of replacing the undersized culvert at Coho Creek, fish exclusion, turbid water management/ erosion control, and placement of streambed substrates will be implemented along approximately 220 feet of Coho Creek.

Construction of the project will require two years. All construction activities below the ordinary high water mark (OHWM) will be implemented during the established in-water work window (July 15 through September 30). The bridge design is consistent with criteria from the Washington State Department of Transportation Bridge Design Manual, and the Washington Department of Fish and Wildlife's Water Crossing Design Guidelines. No impact or vibratory pile driving at or below the OHWM is anticipated.

The action will improve approximately 220 feet of Coho Creek, will remove and replace the undersized culvert, correct skew (a 90-degree turn), constriction-scour, and alignment. Approximately 62 pieces of large wood (including 20 key species) will be installed, and there will be an increase of approximately 1,600 square feet of wetland habitat.

Ebey Slough, Quilceda Creek, and Coho Creek, are the receiving waters for the nine threshold discharge areas (TDAs). Approximately 90 percent of the runoff from all impervious surfaces (created or replaced) in TDAs 1, 5, 6, 7, 8, and 9, will be routed to infiltration facilities. Facilities will also be installed, to meet flow control requirements in TDAs 1,5,6,7,8 and 9, and to reduce untreated stormwater runoff from reaching surface waters. With these improvements, total pollution-generating impervious surface (PGIS) will decrease (approximately -0.24 acre) and treated areas will increase (approximately +5.90 acres) (BA, p. 7).

Sufficient information has been provided to determine the effects of the proposed action and to conclude whether it would adversely affect federally listed species and/or designated critical habitat. Our concurrence is based on information provided by the action agency, best available science, and complete and successful implementation of the conservation measures included by the action agency.

EXPOSURES AND EFFECTS TO BULL TROUT AND THEIR HABITAT

The proposed action is located in a developed urban/ suburban setting, largely comprised of residential and commercial developments. Quilceda Creek and Coho Creek do not support bull trout spawning, rearing, or local populations. Coho Creek may provide foraging habitat for adults and subadults. Quilceda Creek may provide foraging and overwintering habitat. Ebey Slough (a portion of the lower Snohomish River) is designated bull trout critical habitat and supports fluvial and anadromous adults, subadults, and juveniles.

Riparian buffers and vegetation are reduced and dominated by dense reed canary grass (*Phalaris arundinacea*), instream cover and complexity is low, and bedload is predominantly fine sediment. Coho Creek and Quilceda Creek carry low flows and fine sediment, experience elevated water temperatures, and are unsuitable for spawning. We expect that bull trout use and occur in Coho Creek and Quilceda Creek infrequently and in low numbers.

Construction below the OHWM will be completed during the established in-water work window (July 15 to September 30), when bull trout and other salmonids are least likely to be present. Best management practices will be implemented, to avoid and minimize the amount of work below the OHWM, to minimize impacts to the bed/ banks, and temporary impacts to wetlands, buffers, and water quality. Most construction activities for the single-span bridge and channel will be performed outside the OHWM. Turbidity and sedimentation will be intermittent and limited in physical extent and duration. In the unlikely event that ESA listed fish are present, fish will be excluded from affected areas before dewatering the channel.

Construction will result in unavoidable impacts to wetlands/ buffers, native substrates, benthos, the bed and banks of Coho Creek, and water quality. However, the action will improve fish passage and habitat by removing an undersized culvert and will match the new channel to unaffected areas of the stream. In-stream habitat will be improved with large wood and suitable substrates, resulting in increased habitat complexity. Habitat will also be improved by increasing connectivity with the floodplain, replanting disturbed areas/ buffers, and removal of artificial fill and embankment.

The project will modestly increase the total amount of impervious surfaces, but will decrease total PGIS, and substantially increase infiltration and treatment for runoff from existing, replaced, and new PGIS (approximately 6 acres, including enhanced stormwater treatment and flow control). Portions of the project area discharging to Ebey Slough will be serviced by an existing regional stormwater facility. We expect fewer stormwater discharges, and stormwater discharges that are improved for quality compared to the existing conditions. We expect that pollutant concentrations will dilute to negligible levels at fairly close proximity, that any exposures will be brief and transitory, and stormwater discharges will not significantly disrupt normal bull trout behaviors (i.e., the ability to successfully feed, move, or shelter).

We conclude, the proposed action's foreseeable, short- and long-term effects to bull trout and their habitat are insignificant and/or beneficial. The action will meaningfully and measurably improve some current functions.

EFFECTS TO DESIGNATED BULL TROUT CRITICAL HABITAT

The final revised rule designating bull trout critical habitat (75 FR 63898 [October 18, 2010]) identifies nine Primary Constituent Elements (PCEs) essential for the conservation of the species. The 2010 designation of critical habitat for bull trout uses the term PCE. The new critical habitat regulations (81 FR 7214) replace this term with physical or biological features (PBFs). This shift in terminology does not change the approach used in conducting our analyses, whether the original designation identified PCEs, PBFs, or essential features. In this letter, the term PCE is synonymous with PBF, or essential features of critical habitat.

The following PCEs are present in Ebey Sough (a portion of the lower Snohomish River) and may be affected.

PCE 1: *Springs, seeps, groundwater sources, and subsurface water connectivity (hyporheic flows) to contribute to water quality and quantity and provide thermal refugia*.

A small portion of the project area lies either adjacent to or drains and discharges to Ebey Slough. Effects to PCE 1 will not be measurable at the scale of the action area and are considered insignificant.

PCE 2: *Migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers.*

The project does not include construction activities in Ebey Slough. Portions of the project area discharging to Ebey Slough will be serviced by an existing regional stormwater facility. Treated and detained discharges from the project area will dilute to negligible levels at close proximity. Effects to PCE 2 will not be measurable at the scale of the action area and are considered insignificant.

PCE 3: *An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.*

The project will not degrade habitat features or riparian vegetation along Ebey Slough. A small portion of the project area lies either adjacent to or drains and discharges to Ebey Slough. Effects to PCE 3 will not be measurable at the scale of the action area and are considered insignificant.

PCE 4: *Complex river, stream, lake, reservoir, and marine shoreline aquatic environments, and processes that establish and maintain these aquatic environments, with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure*.

The project will have no effect on this PCE.

PCE 5: *Water temperatures ranging from 2°C to 15°C (36°F to 59°F), with adequate thermal refugia available for temperatures that exceed the upper end of this range. Specific temperatures within this range will depend on bull trout life-history stage and form; geography; elevation; diurnal and seasonal variation; shading, such as that provided by riparian habitat; streamflow; and local groundwater influence.*

The project will have no effect on this PCE.

PCE 7: *A natural hydro graph, including peak, high, low, and base flows within historic and seasonal ranges or, if flows are controlled, minimal flow departure from a natural hydro graph*.

A small portion of the project area lies either adjacent to or drains and discharges to Ebey Slough. Effects to PCE 7 will not be measurable at the scale of the action area and are considered insignificant.

PCE 8: *Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited*.

Portions of the project area discharging to Ebey Slough will be serviced by an existing regional stormwater facility. Treated and detained discharges from the project area will dilute to negligible levels at close proximity. Effects to PCE 8 will not be measurable at the scale of the action area and are considered insignificant.

PCE 9: *Sufficiently low levels of occurrence of nonnative predatory (e.g., lake trout, walleye, northern pike, smallmouth bass); interbreeding (e.g., brook trout); or competing (e.g., brown trout) species that, if present, are adequately temporally and spatially isolated from bull trout.*

This project will have no effect on this PCE.

EXPOSURES AND EFFECTS TO OREGON SPOTTED FROG

Exposures and effects to Oregon spotted frog are extremely unlikely (discountable). Temporary and/or long-term effects to habitat are not expected to measurably disrupt normal behaviors (i.e., the ability to successfully feed, move, and/or shelter), and are therefore considered insignificant and/or discountable:

- Habitats are dominated by dense monocultural stands of reed canary grass and surrounded by development. It is extremely unlikely that these low-quality sites are occupied.
- The closest known population is approximately 30 miles north of the action area. Tulalip Tribe biologists conducted field work in wetlands throughout the watershed, without Oregon spotted frog observations.
- Work below the OHWM will be completed during the established in-water work window (July 15 to September 30), after the Oregon spotted frog breeding season.

- Biologists will perform preconstruction surveys to identify and further minimize temporary impacts to any potentially suitable habitat.
- Approximately 7,700 square feet of wetlands/ buffer will be restored, increasing wetland habitat by 1,600 square feet.

EXPOSURES AND EFFECTS TO MARBLED MURRELET

Temporary and/or long-term effects are not expected to measurably disrupt normal marbled murrelet behaviors (i.e., the ability to successfully feed, move, and/or shelter), and are therefore considered insignificant and/or discountable:

- The action area does not include suitable nesting trees or stands. The nearest mapped suitable nesting habitat is located at least 15 miles to the east.
- Stands and trees are mostly second- or third-growth, fragmented/ isolated, and surrounded by residential and commercial developments. Suitable platforms are absent.

CONCLUSION

This concludes consultation pursuant to the regulations implementing the ESA (50 CFR 402.13). Our review and concurrence with your effect determinations is based on implementation of the action as described. It is the responsibility of the federal action agency to ensure that the actions they authorize or carry out are in compliance with the regulatory permit and ESA. If a permittee or the federal action agency deviates from the measures outlined in a permit or project description, the federal action agency has the obligation to reinitiate consultation and comply with section 7(d).

This action should be re-analyzed and re-initiation may be necessary if 1) new information reveals effects of the action that may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation, 2) if the action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this consultation, and/or 3) a new species is listed or critical habitat is designated that may be affected by the action.

This letter constitutes a complete response by the Service to your request for informal consultation. A record of this consultation is on file at the Washington Fish and Wildlife Office, in Lacey, Washington. If you have any questions about this letter, or our shared responsibilities under the ESA, please contact Brie English at brieanna_english@fws.gov.

Sincerely,

for Brad Thompson, State Supervisor
Washington Fish and Wildlife Office

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
PORTLAND, OR 97232-1274

Refer to NMFS No:
WCRO-2022-02360

March 21, 2025

Dan Galvan
Northwest Regional Director
U.S. Bureau of Indian Affairs, Northwest Regional Office
911 Northeast 11th Avenue
Portland, Oregon 97232

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the I-5 4th Street and 88th Street NE Corridor Improvements Project, Marysville, Snohomish County, Washington (HUCs: 171100110204 - Quilceda Creek and 171100110203 - Frontal Possession Sound)

Dear Mr. Galvan:

Thank you for the Bureau of Indian Affairs (BIA) letter of June 13, 2022, requesting initiation of consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 et seq.) for the BIA's right-of-way grant for the I-5 4th Street and 88th Street NE Corridor Improvements Project, in Marysville, Washington. The NMFS also reviewed the likely effects of the proposed action on essential fish habitat (EFH), pursuant to section 305(b) of the Magnuson–Stevens Fishery Conservation and Management Act [16 U.S.C. 1855(b)].

The enclosed document contains the biological opinion (opinion) prepared by the NMFS pursuant to section 7 of the ESA on the effects of the proposed action. In this opinion, the NMFS concludes that the proposed action would adversely affect but is not likely to jeopardize the continued existence of Puget Sound (PS) Chinook salmon and PS steelhead. The NMFS also concludes that the proposed action is likely to adversely affect designated critical habitat for both species, but is not likely to result in the destruction or adverse modification of that designated critical habitat. This opinion also documents our conclusion that the proposed action is not likely to adversely affect southern resident (SR) killer whales and their designated critical habitat.

This opinion includes an incidental take statement (ITS) that describes reasonable and prudent measures (RPMs) we consider necessary or appropriate to minimize the incidental take associated with this action, and sets forth nondiscretionary terms and conditions that the BIA must comply with to meet those measures. Incidental take from actions that meet these terms and conditions will be exempt from the ESA's prohibition against the take of listed species.

Section 3 of this document includes our analysis of the action's likely effects on EFH pursuant to Section 305(b) of the MSA. Based on that analysis, the NMFS concluded that the action would adversely affect designated freshwater EFH for Pacific Coast Salmon.

Therefore, we have provided 1 conservation recommendation that can be taken by the BIA to avoid, minimize, or otherwise offset potential adverse effects on EFH. We also concluded that the action would not adversely affect EFH for Pacific Coast groundfish and coastal pelagic species. Therefore, consultation under the MSA is not required for those EFHs.

Section 305(b) (4) (B) of the MSA requires Federal agencies to provide a detailed written response to the NMFS within 30 days after receiving this recommendation. If the response is inconsistent with the EFH conservation recommendations, the USACE must explain why the recommendations will not be followed, including the scientific justification for any disagreements over the effects of the action and recommendations. In response to increased oversight of overall EFH program effectiveness by the Office of Management and Budget, the NMFS established a quarterly reporting requirement to determine how many conservation recommendations are provided as part of each EFH consultation and how many are adopted by the action agency. Therefore, we request that in your statutory reply to the EFH portion of this consultation you clearly identify the number of conservation recommendations accepted.

Please contact Donald Hubner in the North Puget Sound Branch of the Oregon Washington Coastal Office at (206) 526-4359, or by electronic mail at Donald.Hubner@noaa.gov if you have any questions concerning this consultation, or if you require additional information.

Sincerely,

Kathleen Wells
Assistant Regional Administrator
Oregon Washington Coastal Office

cc: Ashton Harp, BIA
Tobiah Mogavero, BIA

Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the

I-5 4th Street and 88th Street NE Corridor Improvements Project
Marysville, Snohomish County, Washington
(HUCs: 171100110204 - Quilceda Creek and
171100110203 - Frontal Possession Sound)

NMFS Consultation Number: WCRO-2022-02360

Action Agencies: U.S. Bureau of Indian Affairs

Affected Species and NMFS' Determinations:

ESA-Listed Species	Status	Is Action Likely to Adversely Affect Species?	Is Action Likely To Jeopardize the Species?	Is Action Likely to Adversely Affect Critical Habitat?	Is Action Likely To Destroy or Adversely Modify Critical Habitat?
Chinook salmon (*Oncorhynchus tshawytscha*) Puget Sound (PS)	Threatened	Yes	No	Yes	No
Steelhead (*O. mykiss*) PS	Threatened	Yes	No	Yes	No
killer whales (*Orcinus orca*) Southern resident (SR)	Endangered	No	No	Yes	No

Affected Essential Fish Habitat (EFH) and NMFS' Determinations:

Fishery Management Plan That Describes EFH in the Project Area	Does Action Have an Adverse Effect on EFH?	Are EFH Conservation Recommendations Provided?
Pacific Coast Salmon	Yes	Yes
Pacific Coast Groundfish	No	No
Coastal Pelagic Species	No	No

Consultation Conducted By: National Marine Fisheries Service,
West Coast Region

Issued By:

Kathleen Wells
Assistant Regional Administrator
Oregon Washington Coastal Office

Date: March 21, 2025

TABLE OF CONTENTS

1. Introduction 1
1.1 Background 1
1.2 Consultation History 1
1.3 Proposed Federal Action 2
2. Endangered Species Act Biological Opinion And Incidental Take Statement 8
2.1 Analytical Approach 9
2.2 Range-wide Status of the Species and Critical Habitat 10
2.3 Action Area 14
2.4 Environmental Baseline 14
2.5 Effects of the Action 15
2.5.1 Effects on Listed Species 15
2.5.2 Effects on Critical Habitat 17
2.6 Cumulative Effects 19
2.7 Integration and Synthesis 20
2.7.1 ESA Listed Species 20
2.7.2 Critical Habitat 22
2.8 Conclusion 23
2.9 Incidental Take Statement 23
2.9.1 Amount or Extent of Take 24
2.9.2 Effect of the Take 25
2.9.3 Reasonable and Prudent Measures 25
2.9.4 Terms and Conditions 25
2.10 Conservation Recommendations 26
2.11 Re-initiation of Consultation 26
2.12 "Not Likely to Adversely Affect" Determinations 27
3. Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Response 28
3.1 Essential Fish Habitat Affected By the Project 28
3.2 Adverse Effects on Essential Fish Habitat 29
3.3 Essential Fish Habitat Conservation Recommendations 29
3.4 Supplemental Consultation 29
4. Data Quality Act Documentation and Pre-Dissemination Review 29
5. References 31

LIST OF ABBREIVIATIONS

BA – Biological Assessment
BIA – Bureau of Indian Affairs
BMP – Best Management Practices
CFR – Code of Federal Regulations
DIP – Demographically Independent Population
DPS – Distinct Population Segment
DQA – Data Quality Act
EF – Essential Feature
EFH – Essential Fish Habitat
ESA – Endangered Species Act
ESU – Evolutionarily Significant Unit
FR – Federal Register
FMP – Fishery Management Plan
GULD – General Use Level Designation (WDOE wastewater treatment certification)
HAPC – Habitat Area of Particular Concern
HUC – Hydrologic Unit Code
ITS – Incidental Take Statement
JARPA – Joint Aquatic Resource Permit Application
MPG – Major Population Group
MSA – Magnuson-Stevens Fishery Conservation and Management Act
NMFS – National Marine Fisheries Service
NOAA – National Oceanic and Atmospheric Administration
OHWM – Ordinary High-Water Mark
PAH – Polycyclic Aromatic Hydrocarbon
PBF – Physical or Biological Feature
PFMC – Pacific Fishery Management Council
PGIS – Pollution-Generating Impervious Surface
PS – Puget Sound
PSTRT – Puget Sound Technical Recovery Team
PSSTRT – Puget Sound Steelhead Technical Recovery Team
ROW – Right-of-Way
RPA – Reasonable and Prudent Alternative
RPM – Reasonable and Prudent Measure
SR – Southern Resident (Killer Whales)
TDA – Threshold Discharge Area
TSS – Total Suspended Solids
VSP – Viable Salmonid Population
WCR – West Coast Region (NMFS)
WDFW – Washington State Department of Fish and Wildlife
WDOE – Washington State Department of Ecology
WDOT – Washington State Department of Transportation

1. INTRODUCTION

This Introduction section provides information relevant to the other sections of this document and is incorporated by reference into Sections 2 and 3, below.

1.1 Background

The National Marine Fisheries Service (NMFS) prepared the biological opinion (opinion) and incidental take statement (ITS) portions of this document in accordance with section 7(b) of the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 et seq.), as amended, and implementing regulations at 50 CFR part 402.

We also completed an essential fish habitat (EFH) consultation on the proposed action, in accordance with section 305(b)(2) of the Magnuson–Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. 1801 et seq.) and implementing regulations at 50 CFR part 600.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on May 6, 2024 (89 Fed. Reg. 24268). We are applying the updated regulations to this consultation. The 2024 regulatory changes, like those from 2019, were intended to improve and clarify the consultation process, and, with one exception from 2024 (offsetting reasonable and prudent measures), were not intended to result in changes to the Services' existing practice in implementing section 7(a)(2) of the Act. 89 Fed. Reg. at 24268; 84 Fed. Reg. at 45015. We have considered the prior rules and affirm that the substantive analysis and conclusions articulated in this biological opinion and incidental take statement would not have been any different under the 2019 regulations or pre-2019 regulations.

We completed pre-dissemination review of this document using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (DQA) (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The document will be available at the NOAA Library Institutional Repository [https://repository.library.noaa.gov/welcome]. A complete record of this consultation is on file at the Oregon Washington Coastal Office.

1.2 Consultation History

On September 22, 2022, we received the Bureau of Indian Affairs' (BIA) June 13, 2022 consultation request letter (BIA 2022) and its enclosed Biological Assessment (BA; Parametrix 2022a) for their proposed granting of right-of-way on tribal lands for the I-5 Corridor Improvements Project at 4th Street and 88th Street in Marysville, Washington.

The request was assigned on February 16, 2023. On February 24, 2023, we provided initial review comments to recommend the inclusion of specific stormwater treatment systems (NMFS 2023a). On February 15, 2024, we requested information and again stressed the need for high-level filtration treatment for the stormwater (NMFS 2024a).

On April 1, 2024, we received 6 emails from the BIA (BIA 2024a – f). Attached to those emails were responses to our questions and a draft landscape restoration plan (BIA 2024g & h); parts 1 through 5 of the Coho Creek Preliminary Hydrological Design Report (Tulalip 2022a - e); figures for the Coho Creek work (Tulalip 2023); and a revised action area figure (Tulalip 2024).

On December 20, 2024, we received an email from the BIA's agent (Parametrix 2024b) with an attached technical memorandum that described the proposed stormwater treatment plan (Parametrix 2024c). On February 28, 2025, we met with members of Parametrix to discuss the technical memorandum and the need for updated project details and drawings. The updated project details and drawings were provided in a series of emails between February 28, and March 6, 2025 (Parametrix 2025a – h). The NMFS considers that formal ESA consultation and EFH consultation was initiated for the proposed action on December 20, 2024.

This opinion is based on the information in the documents identified above; recovery plans, status reviews, and critical habitat designations for ESA-listed PS Chinook salmon and PS steelhead; published and unpublished scientific information on the biology and ecology of those species; and relevant scientific and gray literature (see Literature Cited).

1.3 Proposed Federal Action

Under the ESA, "action" means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies (see 50 CFR 402.02).

The BIA proposes to grant right-of-way on tribal lands to the Tulalip Tribes (Tribes), in partnership with the Washington State Department of Transportation (WDOT), Snohomish County, and the City of Marysville (the Applicants). The action would allow the applicants to improve the 4th Street and 88th Street NE interchanges with Interstate 5 (I-5) in Marysville, Washington (Figures 1). The project would also include fish passage and stream improvements where 88th Street NE crosses Coho Creek.

Figure 1. Google Earth image of Marysville, Washington, showing the project sites at the 4th and 88th Street interchanges with Interstate 5 (I-5). Ebey Slough, off the Snohomish River is visible in the bottom center of the image.

Project Overview

The project would consist primarily of standard upland roadway work to modify the existing I-5 interchanges with 4th Street and 88th Street NE (Figure 2), and to upgrade the associated stormwater management facilities. 4th Street is the southern of the two interchanges. The fish passage and stream improvements component would comprise the only in-water work.

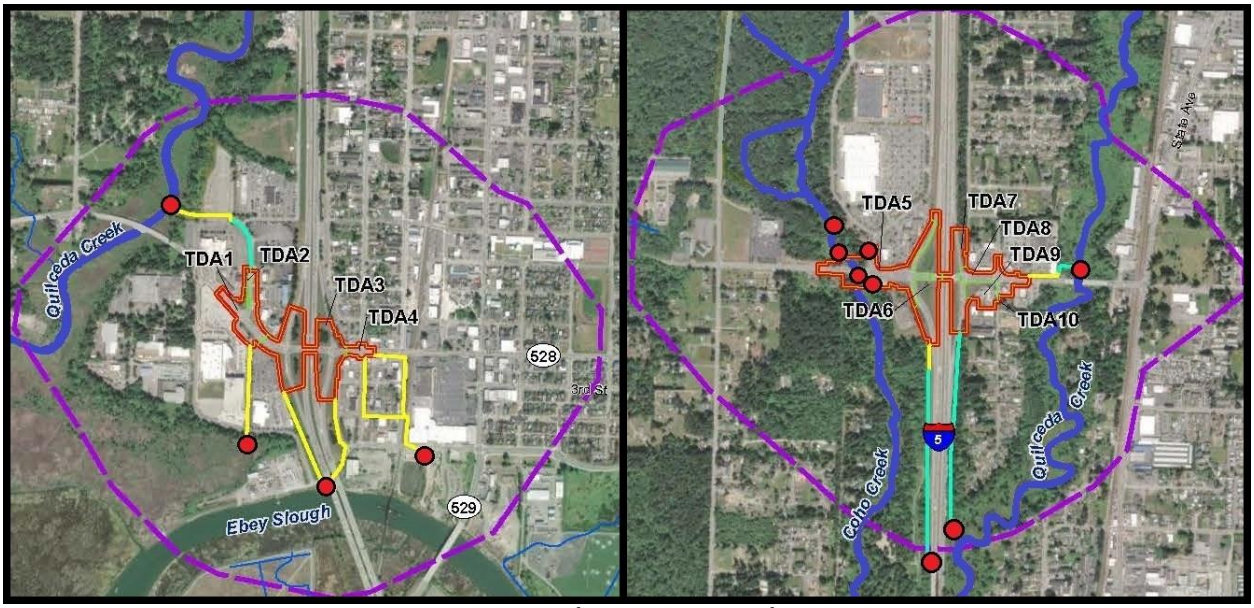


Figure 2. Google Earth images of the 4th Street and 88th Street project areas, left and right, respectively. The areas where road work would occur are outlined in red. The yellow and green lines indicate stormwater flow routes, and the red dots indicate stormwater outfall locations (Adapted from Tulalip 2024).

Specific project activities for both interchanges are discussed individually below. Construction at the two sites would be done concurrently, and is expected to require 2 years to complete. All work below the ordinary high-water line (OHWL) would be done within the Tribally-established July 15 through September 30 in-water work window for the area. The project would include a mix of newly constructed, replaced, repaired, and removed impervious surface. When complete, there would be a total of 12.12 acres of action-related impervious surface, 10.67 acres of which would be pollution-generating impervious surface (PGIS; i.e. vehicle-bearing). The project would reduce existing PGIS by 0.90 acre. The project would treat stormwater runoff for as much action-related PGIS as practicable (9.46 acres). To compensate for the 1.21 acres of action-related PGIS that is impracticable to treat, the project would treat 2.90 acres of non-action-related PGIS (Parametrix 2025h).

4th Street Corridor Improvements

4th Street Corridor improvements would include: 1) The construction of 3 new roundabouts to replace 4th Street's signaled intersections at 33rd Avenue NE, the I-5 southbound on- and offramps, and the I-5 northbound on- and offramps; 2) Pavement expansion and marking of the lanes entering and exiting the roundabouts (channelization improvements); 3) Reconfiguration of

pedestrian and bicycle access routes within the project area; and 4) Installation of stormwater management facilities. The 4th Street project area would be divided into 4 Threshold Discharge Areas (TDAs 1 – 4, Figure 3). The total combined action-related PGIS would be 4.86 acres. The project would treat the stormwater from 3.85 acres of the total, plus the stormwater from 1.79 acres of non-action related PGIS to compensate for 1.01 acres of action-related PGIS that is impracticable to treat (Parametrix 2025h), primarily due to the elevations of those PGIS parcels.

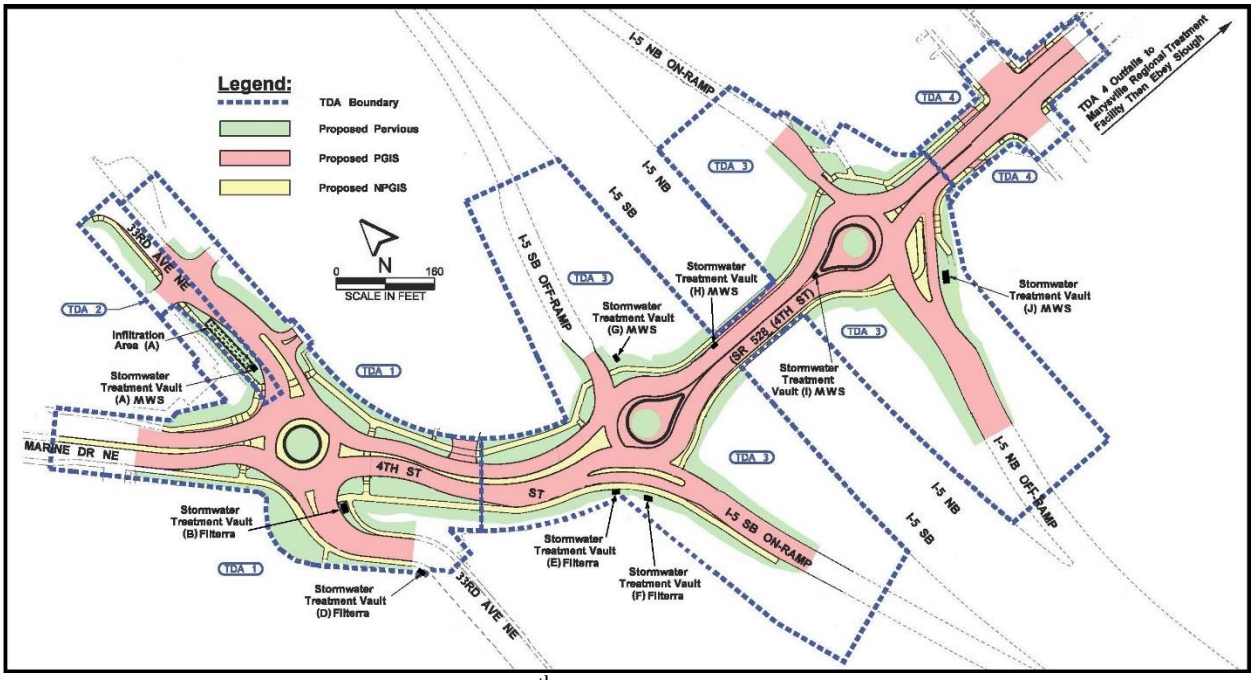


Figure 3. Drawing of the proposed 4th Street PGIS, NPGIS, pervious areas, and treatment facilities (Adapted from Parametrix 2025b).

The stormwater from the 4th Street project area would be treated by a combination of 4 Filterra stormwater treatment vaults (SWTVs B, D, & E in Figures 3 & 4), 4 Modular Wetland Systems (MWS) units (SWTV A, G, H, I, & J), and the new Marysville Regional Stormwater Treatment Facility.

If for any reason the applicant cannot install the specified stormwater treatment systems, they must install stormwater treatment systems that are GULD certified by Washington State Department of Ecology (WDOE) to meet or exceed the treatment levels provided by the proposed Filterra and MWS systems. In the case of the Filterra system, at a minimum, alternative systems must be GULD certified for Oil Control and Enhanced treatment. For the MWS system, alternative systems must be GULD certified for Enhanced treatment. Additionally, any modification of the proposed treatment systems must be cleared by a qualified NMFS consultation biologist to ensure that the alternate systems provide equitable or better levels of treatment than the currently proposed systems.

The treated stormwater would discharge to a wetland complex directly south of TDAs 1 & 2, to Ebey Slough (also south of the 4th Street project area), and to the new on-site Infiltration Trench (A). The stormwater from action-related PGIS that is impracticable to treat (red-hatched areas in

Figure 4) would discharge to the wetland complex, Ebey Slough, and Quilceda Creek as it does under the current conditions (Figure 2).

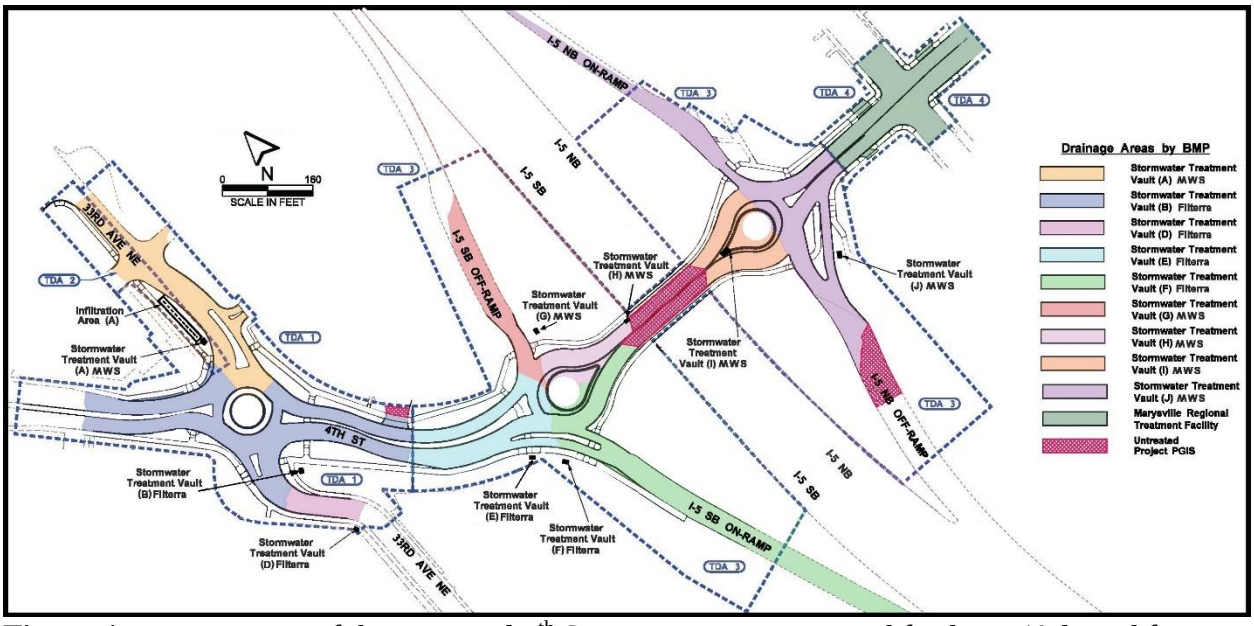


Figure 4. Drawing of the proposed 4th Street treatment areas and facilities (Adapted from Parametrix 2025e).

88th Street Corridor Improvements

88th Street Corridor improvements would include: 1) The construction of 4 new roundabouts to replace 88th Street's signaled intersections at 34th Avenue NE, the I-5 southbound on- and off-ramps, the I-5 northbound on- and off-ramps, and 36th Avenue NE; 2) Pavement expansion and lane marking (channelization improvements); 3) Reconfiguration of pedestrian and bicycle access routes; 4) Installation of stormwater management facilities; and 5) Fish passage and stream habitat improvements in Coho Creek.

The 88th Street project area would be divided into TDAs 5 – 10 (Figure 5). The total combined action-related PGIS would be 5.81 acres. The project would treat the stormwater from 5.61 acres of the total, plus the stormwater from 1.11 acres of non-action related PGIS to compensate for 0.2 acre of action-related PGIS that is impracticable to treat (primarily due to the elevations of those PGIS parcels) (Parametrix 2025h).

The stormwater from the 88th Street project area would be treated by a combination of 6 Filterra stormwater treatment vaults (SWTVs A, B, G, H, J, & K in Figures 5 & 6), and 5 Modular Wetland Systems (MWS) units (SWTV C, D, E, F, & I). The majority of 88th Street's treated stormwater would discharge to 4 on-site infiltration ponds and vaults (Infiltration Ponds A, B, & C and Infiltration Vaults A & B). The rest of the treated stormwater would discharge to Coho and Quilceda Creeks. Depending on the TDA, the stormwater from action-related PGIS that is impracticable to treat (red areas in Figure 6) would continue to infiltrate on site or discharge to Coho and Quilceda Creeks as it does under the current condition (Figure 2).

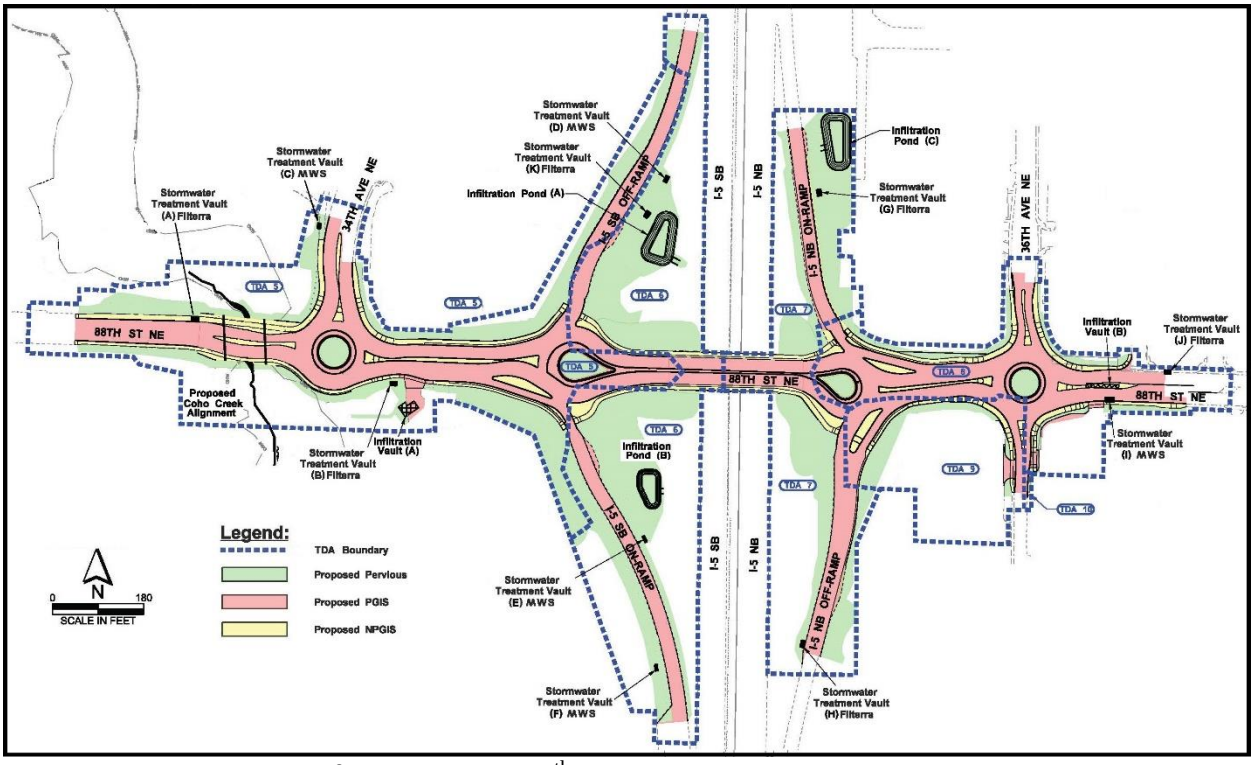


Figure 5. Drawing of the proposed 88th Street PGIS, NPGIS, pervious areas, and treatment facilities (Adapted from Parametrix 2025j).

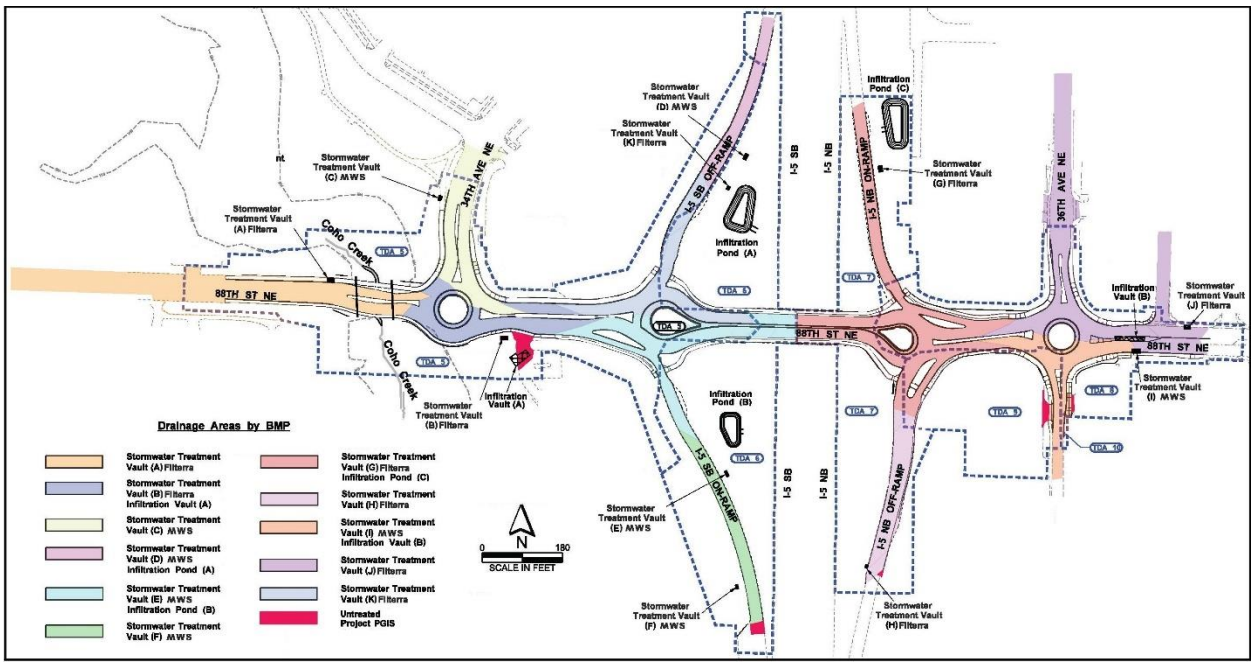


Figure 6. Drawing of the proposed 88th Street treatment areas and facilities (Adapted from Parametrix 2025i).

The Coho Creek fish passage and stream habitat improvements component of the project is described in detail in the project BA and in the Tulalip Tribes' Preliminary Hydraulic Design Report (Tulalip 2022a - e). In summary, the applicants would replace a 54-inch-diameter concrete culvert with a 100-foot, single-span bridge, realign the streambed to create a smooth bend at the road crossing, and install appropriate streambed materials and about 60 pieces of large woody material (Figure 7).

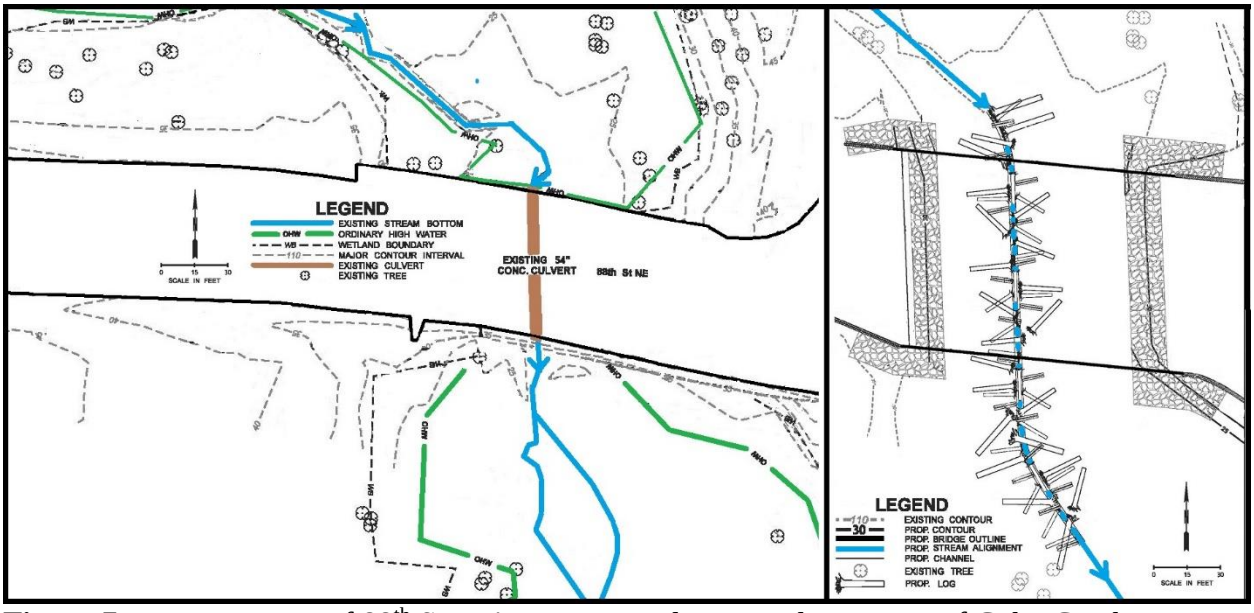


Figure 7. Drawings of 88th Street's existing and proposed crossings of Coho Creek (Adapted from Sheets 3 & 6 in Tulalip 2023).

The new bridge would have a minimum hydraulic opening of 30 feet and a vertical clearance of more than 8 feet. The new channel would tie back into the existing stream about 90 feet upstream, and 75 feet downstream of the new bridge, and match the hydraulic characteristics of the unaffected portions of the stream.

Work would take place primarily during daylight hours on weekdays, and all construction activities below the ordinary high-water line would occur during the Tribes' July 15 through September 30 in-water work window. After construction, disturbed areas would be revegetated with native species that support the ecological functions of those areas and hydroseeded.

Other activities that could be caused by the proposed action

The BA reports, and we agree that the only additional activity that the proposed action is likely to cause would be the temporarily increased traffic on adjacent routes during the construction period, due to detours. Therefore, we have included we included an analysis of the effects of the altered traffic routes in the effects section of this Opinion.

The BA also reports that traffic at the project interchanges is likely to almost triple in the future due to population growth. About 6,400 to 15,000 vehicles used the I-5 interchange with 4th Street per day in 2020, and concurrently, about 4,500 to 11,000 vehicles used the I-5 interchange

with 88th Street NE per day. WDOT modeling suggests that future daily use of the 88th Street NE interchange would increase to about 19,000 to 29,000 vehicles. The purpose of the project is to reduce congestion and increase safety at these interchanges, considering the expected increase in traffic that is likely to occur in the area. However, the action would not cause the increased traffic levels, and analysis of the effects of future traffic's stormwater runoff is the central component of the effects section of this Opinion.

2. ENDANGERED SPECIES ACT BIOLOGICAL OPINION AND INCIDENTAL TAKE STATEMENT

The ESA establishes a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat upon which they depend. As required by section 7(a)(2) of the ESA, each federal agency must ensure that its actions are not likely to jeopardize the continued existence of endangered or threatened species or to adversely modify or destroy their designated critical habitat. Per the requirements of the ESA, federal action agencies consult with NMFS, and section 7(b)(3) requires that, at the conclusion of consultation, NMFS provide an opinion stating how the agency's actions would affect listed species and their critical habitats. If incidental take is reasonably certain to occur, section 7(b)(4) requires NMFS to provide an ITS that specifies the impact of any incidental taking and includes reasonable and prudent measures (RPMs) and terms and conditions to minimize such impacts.

The BIA determined that the proposed action is likely to adversely affect PS Chinook salmon, PS steelhead, and designated critical habitat for both of those species. They further determined that the proposed action may affect, but is not likely to adversely affect Southern Resident (SR) killer whales and their designated critical habitat (Table 1). Because we have concluded that the proposed action is likely to adversely affect listed species and critical habitats under our jurisdiction, we have proceeded with formal consultation. Our concurrence with the BIA's not likely to adversely affect determination for SR killer whales and their critical habitat can be found in section 2.12.

Table 1. ESA-listed species and critical habitat that may be affected by the proposed action.

ESA-listed species and or critical habitat likely to be adversely affected (LAA)				
Species	**Status**	**Species**	**Critical Habitat**	**Listed / CH Designated**
Chinook salmon (*Oncorhynchus tshawytscha*) Puget Sound	Threatened	LAA	LAA	06/28/05 (70 FR 37160) / 09/02/05 (70 FR 52630)
steelhead (*O. mykiss*) Puget Sound	Threatened	LAA	LAA	05/11/07 (72 FR 26722) / 02/24/16 (81 FR 9252)
ESA-listed species and critical habitat not likely to be adversely affected (NLAA)				
Species	**Status**	**Species**	**Critical Habitat**	**Listed / CH Designated**
killer whales (*Orcinus orca*) southern resident	Endangered	NLAA	NLAA	11/18/05 (70 FR 57565) / 11/29/06 (71 FR 69054)

LAA = likely to adversely affect NLAA = not likely to adversely affect

N/A = not applicable. The action area is outside designated critical habitat, or critical habitat has not been designated.

2.1 Analytical Approach

This biological opinion includes both a jeopardy analysis and an adverse modification analysis. The jeopardy analysis relies upon the regulatory definition of "jeopardize the continued existence of" a listed species, which is "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50 CFR 402.02). Therefore, the jeopardy analysis considers both survival and recovery of the species.

This biological opinion also relies on the regulatory definition of "destruction or adverse modification," which "means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species" (50 CFR 402.02).

The designation of critical habitat for PS Chinook salmon and steelhead use the terms primary constituent element or essential features. The 2016 final rule (81 FR 7414; February 11, 2016) that revised the critical habitat regulations (50 CFR 424.12) replaced those terms with "physical or biological features" (PBFs). The shift in terminology does not change the approach used in conducting a "destruction or adverse modification" analysis, which is the same regardless of whether the original designation identified primary constituent elements, essential features, or PBFs. In this biological opinion, we use the term PBF to mean primary constituent element or essential feature, as appropriate for the specific critical habitat.

The ESA Section 7 implementing regulations define effects of the action using the term "consequences" (50 CFR 402.02). As explained in the preamble to the final rule revising the definition and adding this term (84 FR 44976, 44977; August 27, 2019), that revision does not change the scope of our analysis, and in this opinion, we use the terms "effects" and "consequences" interchangeably.

We use the following approach to determine whether a proposed action is likely to jeopardize listed species or destroy or adversely modify critical habitat:

- Evaluate the range-wide status of the species and critical habitat expected to be adversely affected by the proposed action.
- Evaluate the environmental baseline of the species and critical habitat.
- Evaluate the effects of the proposed action on species and their critical habitat using an exposure–response approach.
- Evaluate cumulative effects.
- In the integration and synthesis, add the effects of the action and cumulative effects to the environmental baseline, and, in light of the status of the species and critical habitat, analyze whether the proposed action is likely to: (1) directly or indirectly reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species; or (2) directly or indirectly result in an alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.
- If necessary, suggest a reasonable and prudent alternative to the proposed action.

2.2 Range-wide Status of the Species and Critical Habitat

This opinion examines the status of each species that is likely to be adversely affected by the proposed action. The status is determined by the level of extinction risk that the listed species face, based on parameters considered in documents such as recovery plans, status reviews, and listing decisions. This informs the description of the species' likelihood of both survival and recovery. The species status section also helps to inform the description of the species' "reproduction, numbers, or distribution" for the jeopardy analysis. The opinion also examines the condition of designated critical habitat, evaluates the conservation value of the various watersheds and coastal and marine environments that make up the designated critical habitat, and discusses the function of the PBFs that are essential for the species' conservation.

Detailed information about the biology, habitat, and conservation status and trends of the listed species and critical habitats considered in this opinion can be found in the listing regulations and critical habitat designations published in the Federal Register, as well as in the recovery plans and other sources at: https://www.fisheries.noaa.gov/species-directory/threatened-endangered, which are incorporated here by reference.

Listed Species

Table 2, summarizes the best available information in the current listing, recovery plans, and status reviews for the species considered in this opinion. Acronyms appearing in the table include ESU (Evolutionarily Significant Unit), TRT (Technical Recovery Team), DPS (Distinct Population Segment), PSTRT (Puget Sound Technical Recovery Team), and MPG (Major Population Group).

Table 2. Status summary for listed species considered in this opinion.

Species	Listing Classification and Date	Recovery Plan Reference	Most Recent Status Review	Status Summary	Limiting Factors
Puget Sound Chinook salmon	Threatened 6/28/05 (70 FR 37159)	Shared Strategy for Puget Sound 2007 NMFS 2006	NMFS 2016; Ford 2022	This ESU comprises 22 populations distributed over five geographic areas. All Puget Sound Chinook salmon populations continue to remain well below the TRT planning ranges for recovery escapement levels. Most populations also remain consistently below the spawner–recruit levels identified by the TRT as necessary for recovery. Across the ESU, most populations have increased somewhat in abundance since the last status review in 2016, but have small negative trends over the past 15 years. Productivity remains low in most populations. Overall, the Puget Sound Chinook salmon ESU remains at "moderate" risk of extinction.	• Degraded floodplain and in-river channel structure • Degraded estuarine conditions and loss of estuarine habitat • Degraded riparian areas and loss of in-river large woody debris • Excessive fine-grained sediment in spawning gravel • Degraded water quality and temperature • Degraded nearshore conditions • Impaired passage for migrating fish Severely altered flow regime
Puget Sound steelhead	Threatened 5/11/07 (72 FR 26722)	NMFS 2019	NMFS 2016; Ford 2022	This DPS comprises 32 populations. Viability of has improved somewhat since the PSTRT concluded that the DPS was at very low viability, as were all three of its constituent MPGs, and many of its 32 DIPs (Hard et al. 2015). Increases in spawner abundance were observed in a number of populations over the last five years within the Central & South Puget Sound and the Hood Canal & Strait of Juan de Fuca MPGs, primarily among smaller populations. There were also declines for summer- and winter-run populations in the Snohomish River basin. In fact, all summer-run steelhead populations in the Northern Cascades MPG are likely at a very high demographic risk.	• Continued destruction and modification of habitat • Widespread declines in adult abundance despite significant reductions in harvest • Threats to diversity posed by use of two hatchery steelhead stocks • Declining diversity in the DPS, including the uncertain but weak status of summer-run fish • A reduction in spatial structure • Reduced habitat quality • Urbanization • Dikes, hardening of banks with riprap, and channelization

PS Chinook Salmon within the Action Area: The PS Chinook salmon most likely to occur in the action area would be summer-run fish from the Skykomish River population and fall-run fish from the Snoqualmie River population (Ford 2022; Parametrix 2022a; WDFW 2025a). Both stream- and ocean-type Chinook salmon are present in these populations, with the majority being ocean-types.

The Skykomish River population is considered a native stock with composite production (WDFW 2025b). Between 1980 and 2020, total abundance has fluctuated between about 1,900 and 5,500 spawners, with the average natural-origin spawner abundance trend being slightly negative, and natural origin spawners fluctuating between about 60 and 90 percent since the early 2000s (Ford 2022). The Snoqualmie River population is considered a native stock with wild production (WDFW 2025b). Between 1980 and 2020, total abundance has fluctuated between about 800 and 2,600 spawners, with the average natural-origin spawner abundance trend being negative since the early 2000s, and natural origin spawners fluctuating between about 60 and 90 percent (Ford 2022).

Adult summer- and fall-run Chinook salmon enter the Snohomish River basin system between June and September and spawn mid-September through late November (Parametrix 2022a). Summer-run Chinook salmon have been documented in Quilceda Creek, and fall-run Chinook salmon spawn there. Most juvenile Chinook salmon migrate downstream and out of Quilceda Creek by early June. No Chinook salmon are documented in Coho Creek, but it is possible that rearing juveniles may enter the creek.

PS Steelhead within the Action Area: Both summer- and winter-run steelhead are documented in Quilceda Creek. However, the specific Demographically Independent Populations (DIPs) those fish may belong to is uncertain. The steelhead DIPs of the Snohomish River basin include the Snohomish/Skykomish Rivers, Pilchuck River, and Snoqualmie River winter-runs, and the North Fork Skykomish River and the Tolt River summer-runs (Ford 2022; Parametrix 2022a; WDFW 2025a).

The Snohomish/Skykomish Rivers, Pilchuck River, and Snoqualmie River winter-run DIPs are all considered native stocks with wild production (WDFW 2025c). Between 1980 and 2020, total abundance has fluctuated between about 500 and 4,000 spawners for the Snohomish/Skykomish Rivers DIP, about 400 and 1,500 spawners for the Pilchuck River DIP, and about 350 and 2,200 spawners for the Snoqualmie River DIP. However, the percent of natural-origin spawners has been close 100 percent for all three DIPS (Ford 2022).

The Tolt River DIP is considered a stock of unknown origin with wild production (WDFW 2025c). Between 1980 and 2020, total abundance has fluctuated between about 45 and 250 spawners, with a slightly negative average spawner abundance trend (Ford 2022). The North Fork Skykomish River summer-run DIP is considered a largely native stock with wild production, but no abundance or trend data are available (WDFW 2025c).

Adult summer-run steelhead return to the Snohomish River basin between May and October, whereas winter-run steelhead return to the system between November and April. Spawning for both runs occurs January through June (Parametrix 2022a). Winter-run rearing is documented in

Quilceda Creek (WDFW 2025a). Steelhead smolts typically migrate to marine waters between April and mid-May, but rearing juvenile steelhead may be present year-round (Myers et al. 2015; R2 2008).

Status of the Critical Habitat

Table 3, summarizes the status of designated critical habitat considered in this opinion based on the condition and trends of physical or biological features (PBFs) that are essential to the conservation of the listed species. The PBFs are essential because they support one or more of the species' life stages (e.g., sites with conditions that support spawning, rearing, migration, and foraging). There is no steelhead critical habitat in the action area.

Table 3. Status summary for designated critical habitat considered in this opinion.

Species	Designation Date and Federal Register Citation	Critical Habitat Status Summary
Puget Sound Chinook salmon	9/02/05 70 FR 52630	Critical habitat for Puget Sound Chinook salmon includes 1,683 miles of streams, 41 square mile of lakes, and 2,182 miles of nearshore marine habitat in Puget Sounds. The Puget Sound Chinook salmon ESU has 61 freshwater and 19 marine areas within its range. Of the freshwater watersheds, 41 are rated high conservation value, 12 low conservation value, and eight received a medium rating. Of the marine areas, all 19 are ranked with high conservation value.
Puget Sound steelhead	2/24/16 81 FR 9252	Critical habitat for Puget Sound steelhead includes 2,031 stream miles. Nearshore and offshore marine waters were not designated for this species. There are 66 watersheds within the range of this DPS. Nine watersheds received a low conservation value rating, 16 received a medium rating, and 41 received a high rating to the DPS.
Southern Resident Killer Whale	08/02/2021 86 FR 41668	Critical habitat includes approximately 2,560 square miles of marine inland waters of Washington: 1) the Summer Core Area in Haro Strait and waters around the San Juan Islands; 2) Puget Sound; and 3) the Strait of Juan de Fuca. Six additional areas include 15,910 square miles of marine waters between the 20-feet (6.1-meter (m)) depth contour and the 656.2-feet (200-m) depth contour from the U.S. international border with Canada south to Point Sur, California. We have excluded the Quinault Range Site. Based on the natural history of the Southern Residents and their habitat needs, NMFS identified three PCEs, or physical or biological features, essential for the conservation of Southern Residents: 1) Water quality to support growth and development; 2) prey species of sufficient quantity, quality, and availability to support individual growth, reproduction and development, as well as overall population growth; and 3) passage conditions to allow for migration, resting, and foraging Water quality in Puget Sound, in general, is degraded. Some pollutants in Puget Sound persist and build up in marine organisms including Southern Residents and their prey resources, despite bans in the 1970s of some harmful substances and cleanup efforts. The primary concern for direct effects on whales from water quality is oil spills, although oil spills can also have long-lasting impacts on other habitat features In regards to passage, human activities can interfere with movements of the whales and impact their passage. In particular, vessels may present obstacles to whales' passage, causing the whales to swim further and change direction more often, which can increase energy expenditure for whales and impacts foraging behavior. Reduced prey abundance, particularly Chinook salmon, is also a concern for critical habitat.

Quilceda Creek has been designated as critical habitat for PS Chinook salmon and for PS steelhead. No critical habitat was designated in Coho Creek. Most of Ebey Slough has been

designated as critical habitat for PS Chinook salmon, and Ebey Slough, just west of the I-5 overpass, has been designated as critical habitat for SR killer whales.

2.3 Action Area

"Action area" means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02).

The project area is located between the 4th Street and 88th Street NE interchanges with Interstate 5 (I-5) in Marysville, Washington (Figures 1), where the project would discharge stormwater to Ebey Slough, Quilceda Creek, Coho Creek and to upland infiltration areas (Figure 2). As described in section 2.5, water quality effects related to stormwater discharge would be the stressor with the greatest range of direct and indirect effects on fish. Most detectable effects are likely to be limited to areas within about 1,000 feet of the discharge sites to Ebey Slough, Quilceda Creek, and Coho Creek. However, because some of the stormwater pollutants that would be discharged float and are also highly persistent in the aquatic environment, water quality impacts in the 2 creeks are likely to extend as far as the mouth of Quilceda Creek at Ebey Slough. Additionally, the trophic connectivity between PS Chinook salmon and SR killer whales would extend the action area to the marine waters of Puget Sound. The described area overlaps with the geographic ranges of the ESA-listed species and the boundaries of designated critical habitats identified in Table 1. The action area also overlaps with areas that have been designated, under the MSA, as EFH for Pacific Coast salmon, Pacific Coast groundfish, and coastal pelagic species.

2.4 Environmental Baseline

The "environmental baseline" refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultations, and the impact of State or private actions which are contemporaneous with the consultation in process. The impacts to listed species or designated critical habitat from federal agency activities or existing federal agency facilities that are not within the agency's discretion to modify are part of the environmental baseline (50 CFR 402.02).

Climate Change

Climate change is a factor affecting the environmental baseline, aquatic habitats in general, and the status of the ESA-listed species considered in this opinion.

The effects of climate change are described in detail in the environmental baseline sections of a recent biological opinion (NMFS 2024b), which is included here by reference.

Environmental conditions at the project site and the surrounding area

The environmental conditions at the project site are described on pages 23 through 25 of the BA (Parametrix 2022a), which is included here by reference. Additionally, at 88th Street NE, the water within Quilceda Creek is categorized by the State's Department of Ecology (WDOE) as a Category 5 waterbody for dissolved oxygen; Category 4A for fecal coliform; and Category 1 for zinc. At the I-5 bridge across Ebey Slough, the water is categorized as 4A for dissolved oxygen; and Category 2 for temperature and fecal coliform. The sediments are categorized as Category 2 for sediment bioassay (WDOE 2025).

2.5 Effects of the Action

Under the ESA, "effects of the action" are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action but that are not part of the action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (see 50 CFR 402.02).

As described in Section 1.3, the BIA would grant right-of-way on tribal lands that would allow road work. The project would also include a fish passage and stream restoration component.

No direct effects are expected from the planned road work because it would all be done away from aquatic resources. However, the road work would cause decades-long indirect effects on fish and aquatic habitat resources through stormwater discharge.

Within and slightly downstream of the Coho Creek project site, the proposed fish passage and stream restoration component would cause temporary direct, and long-term indirect effects on fish and aquatic habitat resources. However, there is no documented or expected presence of listed fish, and no designated critical habitat within the expected area of effect for that project component. Therefore, it is extremely unlikely that it would cause any detectable effects on listed fish and critical habitats under our jurisdiction. As such, that work is considered no further in this opinion because it is not likely to adversely affect our listed fish or critical habitats.

2.5.1 Effects on Listed Species

Effects on species are a function of exposure and response. The duration, intensity, and frequency of exposure, and the life stage at exposure all influence the degree of response.

Stormwater-related effects

Exposure to action-related stormwater-borne pollutants is likely to adversely affect PS Chinook salmon and PS steelhead.

The project would create or repair 10.67 acres of action-related PGIS. It would treat the stormwater from 9.46 acres of that PGIS, plus the stormwater from an additional 2.90 acres of non-action-related PGIS to compensate for the 1.21 acres of action-related PGIS that is

impracticable to treat. Of all of the stormwater identified above, the stormwater from about 6.8 acres would discharge to Quilceda Creek, Coho Creek, and Ebey Slough. The remainder would infiltrate.

The project includes the use of high-level treatment systems. However, the effluent from even the best systems retains residual levels of the target pollutants, and the untreated stormwater from 1.21 acres of action related PGIS would discharge to aquatic resources. Therefore, project-related pollutants would enter Quilceda Creek, Coho Creek, and Ebey Slough.

The full suite of roadway-related chemicals now numbers in the thousands. However, three distinct but co-occurring classes of harmful vehicle-related pollutants have been identified, and are ubiquitous in roadway stormwater runoff: Polycyclic Aromatic Hydrocarbons (PAHs); N-(1,3-dimethylbutyl)-N′-phenyl-p-phenylenediamine (6PPD) and its abiotic transformation product 6PPD-quinone (6PPD-q) (NWFSC 2022a; 2022b); and metals, particularly copper and zinc.

Fish can uptake contaminants directly through their gills, and through dietary exposure (Karrow et al. 1999; Lee and Dobbs 1972; McCain et al. 1990; Meador et al. 2006; Neff 1982; Varanasi et al. 1993). The likely effects of exposure to stormwater-borne pollutants are explained in detail in recent biological opinions for similar projects (NMFS 2019a – c; NMFS 2021a & b; NMFS 2023b & c; NMFS 2024b), and in numerous other sources (Auer et al. 2020; Beitinger and Freeman 1983; Biro and Stamps 2010; Brette et al. 2014; Feist et al. 2011; Gobel et al. 2007; Incardona et al. 2004, 2005, and 2006; Landrum and Scavia 1983; Landrum et al. 1984; Mcintyre et al. 2012; Meador et al. 2006; NMFS 2006; Neff 1982; Sandahl et al. 2007; Spromberg et al. 2015; Varanasi et al. 1993).

Information is unavailable to definitively estimate the range of meaningful pollutant-related effects on listed species and their habitat resources. To avoid underestimating that range, this assessment assumes that meaningful project-related pollutant concentrations would extend from the outfall locations in Quilceda and Coho Creeks, downstream to Ebey Slough. This appropriate because some ubiquitous road-related pollutants float and remains highly toxic long after entering aquatic environments, such as PAHs and 6PPD/6PPD-q. This assessment further assumes that the area of meaningful effects in Ebey Slough would be limited to the water and substrates within 1,000 feet of project-related outfalls on the slough.

In Quilceda Creek, Chinook salmon of all life stages are likely be exposed to action-related in-water pollutants, with some migrating juvenile and or adult steelhead also likely to be exposed. In Ebey Slough, migrating juveniles and adults of both species are also likely to be exposed. Those exposures are likely to cause meaningful impacts on the normal behaviors and or fitness of at least some of the exposed individuals. The most likely sources of meaningful effect would be avoidance of affected areas for adults and juveniles of both species, trophic-related fitness impacts for juveniles of both species, and fitness impacts from direct exposure for Chinook salmon eggs.

The annual numbers of either species that would be exposed to these stressors are unquantifiable with any degree of certainty, and are likely to be highly variable over time. Similarly, the

intensity of effect that any individual may experience is uncertain, and likely to be highly variable over time. However, the best available information supports the expectation that the annual numbers of PS Chinook salmon and PS steelhead that would be meaningfully affected by action-related stormwater impacts would be too low to influence any VSP parameters, or to cause any detectable population-level effects for either species.

2.5.2 Effects on Critical Habitat

This assessment considers the intensity of expected effects in terms of the change they would cause in affected Primary Biological Features (PBFs) from their baseline conditions, and the severity of each effect, considered in terms of the time required to recover from the effect. Ephemeral effects are those that are likely to last for hours or days, short-term effects would likely last for weeks, and long-term effects are likely to last for months, years or decades.

Critical Habitat for PS Chinook salmon and PS Steelhead: The proposed action, including full application of the planned conservation measures and best management practices (BMPs), is likely to adversely affect designated critical habitat for PS Chinook salmon and PS Steelhead as described below.

1. Freshwater spawning sites:
   a. Water quantity – The proposed action would cause long-term minor adverse effects on this attribute. Stormwater discharges would continue to slightly increase water quantity and the flashiness of flow rates in Quilceda Creek downstream of the project-related outfalls.
   b. Water Quality – The proposed action would cause long-term minor adverse effects on this attribute. The project would facilitate the decades-long continuation of stormwater discharge to Quilceda Creek. The project includes the installation of stormwater treatment systems. However, untreated stormwater from about 0.8 acre of project-related PGIS would discharge to Quilceda Creek, and it is almost certain that residual levels of harmful pollutants would pass through the treatment systems and be discharged to the creek. The range of detectable water quality impacts is protectively assumed to extend from the upstream-most project-related outfall to mouth of the creek at Ebey Slough because of the expected presence of 6PPD/6PPD-q and other pollutants that float and remain highly toxic long after entering aquatic environments. The action would cause no measurable changes in water temperature or salinity.
   c. Substrate – The proposed action would cause long-term minor adverse effects on this attribute. Untreated stormwater from about 0.8 acre of project-related PGIS would add to suspended sediment loads in Quilceda Creek. That suspended sediment would settle onto the streambed where it may slightly increase sedimentation of spawning gravels. The lateral extent of meaningfully increased sedimentation is unknown, but is protectively assumed to extend from the outfalls to the mouth of the creek.

2. Freshwater rearing sites:
   a. Water quantity – Same as above.
   b. Floodplain Connectivity – The proposed action would cause no effect on this attribute.
   c. Water Quality and Forage – The proposed action would cause long-term minor adverse effects on these attributes. The effects on water quality would be the same as above. The

proposed action would cause minor long-term adverse effects on forage. The continued discharge of roadway pollutants would slightly diminish the availability and quality of forage through the contamination of forage organisms that uptake stormwater-borne pollutants and or through the loss of prey organisms that perish due to pollutant exposure.

d. Natural Cover – The proposed action would cause no effect on this attribute.

3. Freshwater migration corridors free of obstruction and excessive predation:
   a. Obstruction and excessive predation – The proposed action would cause long-term minor adverse effects on this attribute. Exposure to stormwater-borne pollutants would cause water quality conditions that are likely to cause some rearing juvenile Chinook salmon and steelhead to alter their migratory routes to avoid water-borne pollutants. Others may abandon preferred shelter and foraging habitat to avoid the plume. This, in turn may slightly increase the risk of predation for some of the exposed juveniles. It may also cause some migratory alterations for returning adults.
   b. Water quantity – Same as above.
   c. Water quality – Same as above.
   d. Natural Cover – Same as above.

4. Estuarine areas free of obstruction and excessive predation:
   a. Obstruction and excessive predation – Same as above, within about 1,000 feet of the Ebey Slough outfalls.
   b. Water quantity – No detectable effects.
   c. Water quality – Same as above, within about 1,000 feet of the Ebey Slough outfalls.
   d. Natural Cover – No detectable effects.
   e. Forage – No detectable effects.

5. Nearshore marine areas free of obstruction and excessive predation: – Outside of the expected range of detectable effects.

6. Offshore marine areas: – Outside of the expected range of detectable effects.

Critical Habitat for SR Killer Whales: The proposed action, including full application of the planned conservation measures and BMPs, is likely to adversely affect designated critical habitat for SR Killer Whales as described below.

1. Water quality to support growth and development
   The proposed action would cause long-term minor adverse effects on this attribute. As described above, action-related pollutants are expected to be present within about 1,000 feet of the Ebey Slough outfalls, which would overlap slightly with SR killer whale critical habitat that begins less than 300 feet west of the Ebey Slough outfall under the I-5 overpass (Figure 2). The action would cause no measurable changes in water temperature or salinity.

2. Prey species of sufficient quantity, quality, and availability to support individual growth, reproduction, and development, as well as overall population growth
   The proposed actions would cause long-term undetectable effects on prey availability and quality. Action-related impacts would annually injure or kill extremely low numbers of

individual juvenile Chinook salmon (primary prey). However, the numbers of affected juvenile Chinook salmon would be too small to cause detectable effects on the numbers of available adult Chinook salmon in marine waters.

3. Passage conditions to allow for migration, resting, and foraging
   The proposed action would cause no detectable effects on passage conditions.

2.6 Cumulative Effects

"Cumulative effects" are those effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation [50 CFR 402.02]. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA.

Some continuing non-federal activities are reasonably certain to contribute to climate effects within the action area. However, it is difficult if not impossible to distinguish between the action area's future environmental conditions caused by global climate change that are properly part of the environmental baseline *vs.* cumulative effects. Therefore, all relevant future climate-related environmental conditions in the action area are described earlier in the discussion of environmental baseline (Section 2.4).

The current conditions of ESA-listed species and designated critical habitat within the action area are described in the Range-wide Status of the Species and Critical Habitat and Environmental Baseline sections above. The non-federal activities in and upstream of the action area that have contributed to those conditions include past and on-going bankside development, vessel activities, and upland urbanization, as well as upstream forest management, agriculture, road construction, water development, subsistence and recreational fishing, and restoration activities. Those actions were, and continue to be, driven by a combination of economic conditions that characterized traditional natural resource-based industries, general resource demands associated with settlement of local and regional population centers, and the efforts of conservation groups dedicated to restoration and use of natural amenities, such as cultural inspiration and recreational experiences.

We are unaware of any specific future non-federal activities that are reasonably certain to affect the action area. However, we are reasonably certain that future non-federal actions such as the previously mentioned activities are all likely to continue and increase in the future as the human population continues to grow across the region. Continued habitat loss and degradation of water quality from development and chronic input from point- and non-point pollutant sources will likely continue and increase into the future. Recreational and commercial use of the waters within the action area are also likely to increase as the human population grows.

The intensity of these influences depends on many social and economic factors, and therefore is difficult to predict. Further, the adoption of more environmentally acceptable practices and standards may gradually reduce some negative environmental impacts over time. Interest in restoration activities has increased as environmental awareness rises among the public. State,

tribal, and local governments have developed plans and initiatives to benefit ESA-listed PS Chinook salmon and PS steelhead. However, the implementation of plans, initiatives, and specific restoration projects are often subject to political, legislative, and fiscal challenges that increase the uncertainty of their success.

2.7 Integration and Synthesis

The Integration and Synthesis section is the final step in assessing the risk that the proposed action poses to species and critical habitat. In this section, we add the effects of the action (Section 2.5) to the environmental baseline (Section 2.4) and the cumulative effects (Section 2.6), taking into account the status of the species and critical habitat (Section 2.2), to formulate the agency's biological opinion as to whether the proposed action is likely to: (1) reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or distribution; or (2) appreciably diminish the value of designated or proposed critical habitat as a whole for the conservation of the species.

Climate change is likely to increasingly affect the abundance and distribution of the ESA-listed species considered in the opinion. It is also likely to increasingly affect the PBFs of designated critical habitats. The exact effects of climate change are both uncertain, and unlikely to be spatially homogeneous. However, climate change is reasonably likely to cause reduced instream flows in some systems, and may impact water quality through elevated in-stream water temperatures and reduced dissolved oxygen, as well as by causing more frequent and more intense flooding events.

Climate change may also impact coastal waters through elevated surface water temperature, increased and variable acidity, increasing storm frequency and magnitude, and rising sea levels. The adaptive ability of listed-species is uncertain, but is likely reduced due to reductions in population size, habitat quantity and diversity, and loss of behavioral and genetic variation.

The proposed action will cause direct and indirect effects on the ESA-listed species and critical habitats considered in this opinion well into the foreseeable future. However, the action's effects on water quality, substrate, and the biological environment are expected to be of such a small scale that no detectable effects on ESA-listed species or critical habitat through synergistic interactions with the impacts of climate change are expected.

2.7.1 ESA Listed Species

PS Chinook salmon and PS steelhead are both listed as threatened based on declines from historic levels of abundance and productivity, loss of spatial structure and diversity, and an array of limiting factors as a baseline habitat condition. Both species will be affected over time by cumulative effects, some positive – as recovery plan implementation and regulatory revisions increase habitat protections and restoration, and some negative – as climate change and unregulated or difficult to regulate sources of environmental degradation persist or increase. Overall, to the degree that habitat trends are negative, the effects on viability parameters of each species are also likely to be negative. In this context we consider how the proposed action's impacts on individuals would affect the listed species at the population and ESU/DPS scales.

PS Chinook salmon

The long-term abundance trend of the PS Chinook salmon ESU is slightly negative. Reduced or eliminated accessibility to historically important habitat, combined with degraded conditions in available habitat due to land use activities appear to be the greatest threats to the recovery of PS Chinook salmon. Commercial and recreational fisheries also continue to impact this species. The most recent 5-year status review reported a general decline in natural-origin spawner abundance across all PS Chinook salmon MPGs over the most-recent fifteen years. It also reported that escapement levels remain well below the PSTRT planning ranges for recovery for all MPGs, and concluded that the PS Chinook salmon ESU remains at "moderate" risk of extinction (Ford 2022).

As described in the effects section of this opinion, the proposed action would cause a suite of impacts that individually and or in combination would adversely affect small subsets of the Chinook salmon that annually pass through the project area. However, the best available information supports the expectation that the potential losses would be too low to cause detectable population-level effects.

Based on the best available information, the scale of the direct and indirect effects of the proposed action, when considered in combination with the degraded baseline, cumulative effects, and the impacts of climate change, would be too small to cause detectable effects on any of the characteristics of a viable salmon population (abundance, productivity, distribution, or genetic diversity) for the affected PS Chinook salmon populations. Therefore, the proposed action would not appreciably reduce the likelihood of survival and recovery of this listed species.

PS steelhead

The long-term abundance trend of the PS steelhead DPS is negative, especially for natural spawners. Abundance information is unavailable for about 1/3 of the DIPs. In most cases where no information is available, abundances are assumed to be very low. Although most DIPs for which data are available experienced improved abundance over the last five years, 95% of those DIPs are at less than half of their lower abundance target for recovery. The extinction risk for the Puget Sound steelhead DPS is considered moderate. Reduced or eliminated accessibility to historically important habitat, combined with degraded conditions in available habitat due to land use activities appear to be the greatest threats to the recovery of PS steelhead. Fisheries activities also continue to impact this species Ford 2022.

As described in the effects section of this opinion, the proposed action would cause a suite of impacts that individually and or in combination would adversely affect small subsets of the steelhead that annually pass through the project area. However, the best available information supports the expectation that the potential losses would be too low to cause detectable population-level effects.

Based on the best available information, the scale of the direct and indirect effects of the proposed action, when considered in combination with the degraded baseline, cumulative effects, and the impacts of climate change, would be too small to cause detectable effects on any of the

characteristics of a viable salmon population (abundance, productivity, distribution, or genetic diversity) for the affected PS steelhead DIPs. Therefore, the proposed action would not appreciably reduce the likelihood of survival and recovery of this listed species.

2.7.2 Critical Habitat

Critical habitat was designated for PS Chinook salmon, PS steelhead, and SR killer whales to ensure that specific areas with PBFs that are essential to the conservation of those listed species are appropriately managed or protected. These critical habitats will be affected over time by cumulative effects, some positive – as restoration efforts and regulatory revisions increase habitat protections and restoration, and some negative – as climate change and unregulated or difficult to regulate sources of environmental degradation persist or increase. Overall, to the degree that trends are negative, the effects on the PBFs of the considered critical habitats are also likely to be negative. In this context we consider how the proposed action's impacts on the attributes of the action area's PBFs would affect the designated critical habitat's ability to support the conservation of PS Chinook salmon, PS steelhead, and SR killer whales as a whole.

Critical Habitat for PS Chinook Salmon and PS Steelhead

Past and ongoing land and water use practices have degraded salmonid critical habitat throughout the Puget Sound basin. Hydropower and water management activities have reduced or eliminated access to significant portions of historic spawning habitat. Timber harvests, agriculture, industry, urbanization, shoreline development, and point and non-point stormwater and wastewater discharges have adversely altered floodplain and stream morphology in many watersheds, diminished the availability and quality of estuarine and nearshore marine habitats, and reduced water quality across the region.

Global climate change is expected to increase in-stream water temperatures and alter stream flows, possibly exacerbating impacts on baseline conditions in freshwater habitats across the region. Rising sea levels are expected to increase coastal erosion and alter the composition of nearshore habitats, which could further reduce the availability and quality of estuarine habitats. Increased ocean acidification may also reduce the quality of estuarine habitats.

In the future, non-federal land and water use practices and climate change are likely to increase. The intensity of those influences on salmonid critical habitat is uncertain, as is the degree to which those impacts may be tempered by adoption of more environmentally acceptable land use practices, by the implementation of non-federal plans that are intended to benefit salmonids, and by efforts to address the effects of climate change.

As described in the effects section of this opinion, the proposed action would cause a suite of minor long-term adverse effects on the freshwater spawning, rearing, and migration areas free of obstruction and excessive predation PBFs, as well as the estuarine areas free of obstruction and excessive predation PBF. Those impacts would mostly be caused on the direct and indirect effects of the action's impacts on water quality.

Based on the best available information, the scale of the proposed action's effects, when considered in combination with the degraded baseline, cumulative effects, and the impacts of climate change, would be too small to cause any irreversible long-term negative changes in the quality or functionality of the freshwater migration corridors PBF in the action area. Therefore, this critical habitat would maintain its current level of functionality, and retain its current ability to serve the intended conservation role for PS Chinook salmon and PS steelhead.

Critical Habitat for SR Killer Whales

Past and ongoing land and water use practices have degraded SR killer whale critical habitat throughout the Puget Sound basin. Urbanization, shoreline development, and point and non-point stormwater and wastewater discharges have reduced water quality across the region. Shoreline industries and high levels of vessel traffic have increase ambient noise levels, and anthropogenic impacts on Chinook salmon and other fish species have reduced the availability and quality of forage resources for SR killer whales.

In the future, non-federal land and water use practices and climate change are likely to increase. The intensity of those influences on SR killer whale critical habitat is uncertain, as is the degree to which those impacts may be tempered by adoption of more environmentally acceptable land use practices, by the implementation of non-federal plans that are intended to benefit SR killer whales and their primary prey species (Chinook salmon), and by efforts to address the effects of climate change.

As described in the effects section of this opinion, the proposed action would cause minor long-term adverse effects on the water quality attribute. Based on the best available information, the scale of the proposed action's effects, when considered in combination with the degraded baseline, cumulative effects, and the impacts of climate change, would be too small to cause any irreversible long-term negative changes in the quality or functionality of the water quality attribute of SR killer whale critical habitat. Therefore, this critical habitat would maintain its current level of functionality, and retain its current ability to serve the intended conservation role for SR killer whales.

2.8 Conclusion

After reviewing and analyzing the current status of the listed species and critical habitat, the environmental baseline within the action area, the effects of the proposed action, the effects of other activities caused by the proposed action, and cumulative effects, it is the NMFS' biological opinion that the proposed action is not likely to jeopardize the continued existence of PS Chinook salmon and PS steelhead, nor is it likely to destroy or adversely modify designated critical habitat for either of those species, or for SR killer whales.

2.9 Incidental Take Statement

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt

to engage in any such conduct. “Harm” is further defined by regulation to include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 222.102). “Harass” is further defined by guidance as to “create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” “Incidental take” is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this incidental take statement (ITS).

2.9.1 Amount or Extent of Take

In the biological opinion, the NMFS determined that incidental take is reasonably certain to occur as follows:

Harm of PS Chinook salmon and PS steelhead from:

- Stormwater-related effects.

We cannot predict with meaningful accuracy the number of PS Chinook salmon and PS steelhead that are reasonably certain to be injured or killed annually by exposure to any of these stressors. The distribution and abundance of the listed fish that occur within the action area are affected by numerous biotic and environmental processes, such as timing in relation to the life stage and typical behaviors of the species under consideration, intra- and inter-specific interactions such as competition and predation, habitat quality, and the interaction of processes that influence genetic, population, and environmental characteristics. These processes interact in ways that may be random or directional, and may operate across far broader temporal and spatial scales than are affected by the proposed action. Therefore, the distribution and abundance of listed fish in any given area are likely to vary greatly, and somewhat randomly, over time. Further, we know of no device or practicable technique that would yield reliable counts of individuals that may be injured or killed annually by exposure to the proposed action’s impacts. In such circumstances, we use the causal link established between an activity and the likely extent and duration of changes in habitat conditions as surrogates to describe the extent of take as a numerical level of habitat disturbance. The most appropriate surrogates for take are action-related parameters that are directly related to the magnitude of the expected take.

For this action, the proposed amount of project-related PGIS, the amounts of project-related and non-project-related PGIS that would be treated, the proposed treatment methods and systems, and the proposed discharge locations are the best available surrogates for the extent of take of PS Chinook salmon and PS steelhead from exposure to stormwater-related effects.

These surrogates are appropriate because any increase in PGIS would increase the volume of stormwater, any decrease in the treated PGIS and or reduction in treatment quality would

increase pollutant concentrations in the stormwater reaching aquatic resources, and changes to the proposed discharge locations could increase the action-related in-water pollutant concentrations. Any of these changes could increase the intensity of response to stormwater exposure and or increase the numbers of exposed individuals.

In summary, the extent of PS Chinook salmon and PS steelhead take for this action is defined as:

- The discharge of stormwater as described in the proposed action section of this biological opinion, in particular:
  - 10.67 acres of action-related PGIS;
  - Treatment of 9.46 acres of action-related PGIS plus 2.90 acres of non-action-related PGIS;
  - Stormwater treatment with 10 Filterra stormwater treatment vaults and 9 Modular Wetland System units (or equivalent systems with prior NMFS approval), and the new Marysville Regional Stormwater Treatment Facility; and
  - Outfall and infiltration locations as described in the proposed action section.

Exceedance of any of the exposure limits described above would constitute an exceedance of authorized take that would trigger the need to reinitiate consultation.

Although these take surrogates could be construed as partially coextensive with the proposed action, they nevertheless function as effective re-initiation triggers. If any of these take surrogates exceed the proposal, it could still meaningfully trigger re-initiation because the BIA has authority to conduct compliance inspections and to take actions to address non-compliance, including post-construction (33 CFR 326.4).

2.9.2 Effect of the Take

In the biological opinion, the NMFS determined that the amount or extent of anticipated take, coupled with other effects of the proposed action, is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

2.9.3 Reasonable and Prudent Measures

"Reasonable and prudent measures" are measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR 402.02).

The BIA shall require the applicants to:

1. Ensure the implementation of monitoring and reporting to confirm that the take exemption for the proposed action is not exceeded.

2.9.4 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the Federal action agency must comply (or must ensure that any applicant complies) with the following terms and

conditions. The BIA, and the applicants have a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this ITS (50 CFR 402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, protective coverage for the proposed action would likely lapse.

1. The following terms and conditions implement reasonable and prudent measure 1:

    a. The BIA shall require the applicants to develop and implement plans to collect and report details about the take of listed fish. That plan shall:
        i. Require the applicant and or their contractor to maintain and submit records to verify that all take indicators are monitored and reported. Minimally, the records should include documentation of:
            1. Total action-related PGIS acreage;
            2. Treated action-related and non-action-related PGIS acreage;
            3. The locations and types of installed stormwater treatment systems and infiltration features; and
            4. The discharge locations for all action-treated stormwater, including the 2.90 acres of non-action-related PGIS to be treated as an offset.
        ii. Require the applicants to establish procedures for the submission of construction records to the appropriate BIA office, and to submit an electronic post-construction report to the NMFS within six months of completion. Send the report to: projectreports.wcr@noaa.gov. Be sure to include Attn: WCRO-2022-02360 in the subject line.

2.10 Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, "conservation recommendations" are suggestions regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02).

We recommend that the applicants revise the project to prevent the direct discharge to aquatic resources, of any stormwater coming off of the 1.21 acres of action-related PGIS that is considered impracticable to treat.

2.11 Re-initiation of Consultation

This concludes formal consultation for the BIA's right-of-way grant for the I-5 4th Street and 88th Street NE Corridor Improvements Project in Marysville, Washington.

Under 50 CFR 402.16(a): "Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) If new information reveals

effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action."

2.12 "Not Likely to Adversely Affect" Determinations

This assessment was prepared pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402 and agency guidance for preparation of letters of concurrence.

As described in Section 2 and below, the NMFS has concluded that the proposed action is not likely to adversely affect SR killer whales. Detailed information about the biology, habitat, and conservation status and trends of these whales can be found in the listing regulations and critical habitat designations published in the Federal Register, as well as in the recovery plans and other sources at: https://www.fisheries.noaa.gov/species-directory/threatened-endangered, which are incorporated here by reference.

Under the ESA, "effects of the action" means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is not likely to adversely affect listed species is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those that are extremely unlikely to occur.

The effects analysis in this section relies heavily on the descriptions of the proposed action and project site conditions discussed in Sections 1.3 and 2.4, and on the analyses of effects presented in Section 2.5. As described in Section 2.5, the range of detectable action-related stressors would be limited to the freshwater and substrates of Quilceda and Coho Creeks, and the water and substrates within about 1,000 feet of the project-related stormwater outfalls on Ebey Slough.

The proposed action's construction would cause no direct effects on SR killer whales or their critical habitat. However, SR killer whales could be exposed to action-related pollutants within 1,000 feet of the Obey Slough outfalls, and the project may indirectly affect SR killer whales through the trophic web by affecting the quantity and quality of prey available to them. We therefore analyze those potential effects here.

Based on the scope and scale of the project, and on the best available information about the project's likely impacts on water quality in relation to SR killer whale behaviors and physiology, it is extremely unlikely that the concentrations of action-attributable pollutants in Ebey Slough would be high enough to cause any meaningful fitness or behavioral impacts on SR killer whales. Further, based on the location of the outfalls, it is extremely unlikely that any individuals would be exposed to action-attributable pollutants.

Trophic effects are also extremely unlikely to meaningfully impact SR killer whale behaviors and or fitness. As described in Section 2.5, the action would annually affect extremely low numbers of juvenile Chinook salmon. Further, even under natural conditions, individual juvenile Chinook salmon have a very low probability of surviving to adulthood (Bradford 1995). Natural causes of low survival include variability in stream and ocean conditions, predator-prey interactions, and climate variability (Adams 1980, Quinones et al., 2014). Therefore, based on the best available information, the annual numbers of project-affected juvenile Chinook salmon would be too low to influence any VSP parameters for the affected populations, or to cause any detectable reduction in adult Chinook salmon availability for SR killer whales.

For the reasons expressed immediately above, we have concluded that the proposed action is not likely to adversely affect ESA-listed SR killer whales.

3. MAGNUSON–STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT ESSENTIAL FISH HABITAT RESPONSE

Section 305(b) of the MSA directs Federal agencies to consult with the NMFS on all actions or proposed actions that may adversely affect Essential Fish Habitat (EFH). Under the MSA, this consultation is intended to promote the conservation of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity", and includes the physical, biological, and chemical properties that are used by fish (50 CFR 600.10). Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate and loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects on EFH may result from actions occurring within EFH or outside of it and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) of the MSA also requires the NMFS to recommend measures that can be taken by the action agency to conserve EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset the adverse effects of the action on EFH [CFR 600.905(b)].

This analysis is based, in part, on the EFH assessment provided by the BIA and the descriptions of EFH contained in the fishery management plan for Pacific Coast salmon developed by the Pacific Fishery Management Council and approved by the Secretary of Commerce (PFMC 2014).

3.1 Essential Fish Habitat Affected By the Project

The project area is located in Marysville, Washington, at the 4th Street and 88th Street NE interchanges with Interstate 5 (Figures 1 & 2). The project's affected waters and substrates are designated as freshwater EFH Pacific Coast Salmon. Based on its location, scope, and scale, the proposed action is likely to impact freshwater EFH for Pacific Coast salmon, as well as the spawning habitat and estuaries Habitat Areas of Particular Concern (HAPCs).

Due to trophic links between PS Chinook salmon and SR killer whales, the project's action area overlaps with marine waters that have been designated as marine EFH for Pacific Coast Salmon, Pacific Coast Groundfish, and Coastal Pelagic Species. However, the action would not adversely affect marine EFH because it would cause no detectable effects on any their attributes.

3.2 Adverse Effects on Essential Fish Habitat

Based on the analyses of expected effects, as discussed in section 2.5 of the biological opinion, as supported by the cited recent biological opinions and the numerous other cited sources, including the applicant's BA, the proposed action would cause long-term minor adverse impacts on the following attributes of freshwater EFH for Pacific Coast salmon: water quality; water quantity, depth, and velocity; prey availability; and substrate composition. It is also likely to cause long-term minor adverse impacts on the spawning habitat and estuaries HAPCs.

3.3 Essential Fish Habitat Conservation Recommendations

We determined that the following conservation recommendations are necessary to avoid, minimize, mitigate, or otherwise offset the adverse effects of the proposed action on EFH.

To reduce expected impacts on water quality, prey availability, and substrate composition, we recommend that the applicants revise the project to prevent the direct discharge to aquatic resources, of any stormwater coming off of the 1.21 acres of action-related PGIS that is considered impracticable to treat.

We know of no reasonable measures that the applicant could include to further reduce or offset the project's expected effects on water quantity, depth, and velocity, and consequently offer no conservation recommendations to address those impacts.

3.4 Supplemental Consultation

The BIA must reinitiate EFH consultation with the NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for the NMFS' EFH Conservation Recommendations [50 CFR 600.920(l)].

4. DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVIEW

The Data Quality Act (DQA) specifies three components contributing to the quality of a document. They are utility, integrity, and objectivity. This section of the opinion addresses these DQA components, documents compliance with the DQA, and certifies that this opinion has undergone pre-dissemination review.

4.1 Utility

Utility principally refers to ensuring that the information contained in this consultation is helpful, serviceable, and beneficial to the intended users. The intended user of this opinion the is the BIA.

Other interested users could include the applicant, the WDFW, the governments and citizens of Snohomish County and the City Marysville, and the people of the Tulalip Tribes. Individual copies of this opinion were provided to the BIA. The document will be available at the NOAA Library Institutional Repository [https://repository.library.noaa.gov/welcome]. The format and naming adhere to conventional standards for style.

4.2 Integrity

This consultation was completed on a computer system managed by the NMFS in accordance with relevant information technology security policies and standards set out in Appendix III, 'Security of Automated Information Resources,' Office of Management and Budget Circular A-130; the Computer Security Act; and the Government Information Security Reform Act.

4.3 Objectivity

Information Product Category: Natural Resource Plan

Standards: This consultation and supporting documents are clear, concise, complete, and unbiased; and were developed using commonly accepted scientific research methods. They adhere to published standards including the NMFS ESA Consultation Handbook, ESA regulations, 50 CFR 402.01 et seq., and the MSA implementing regulations regarding EFH, 50 CFR part 600.

Best Available Information: This consultation and supporting documents use the best available information, as referenced in the References section. The analyses in this opinion and EFH consultation contain more background on information sources and quality.

Referencing: All supporting materials, information, data and analyses are properly referenced, consistent with standard scientific referencing style.

Review Process: This consultation was drafted by NMFS staff with training in ESA and MSA implementation, and reviewed in accordance with West Coast Region ESA quality control and assurance processes.

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