Contract Provisions and Plans

For Construction of:

SR 99 MP 31.05 TO MP 31.0

YESLER WAY
FOUNDATION

KING COUNTY

F. A. PROJECT NO. ER

All Addenda Incorporated

Washington State
Department of Transportation

Department of Transportation
Olympia, Washington 98504

August 15, 2007

ATTENTION: All Bidders and Planholders

SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
ER-0101(304)

Addendum No. 1

The Special Provisions, Plans, and Proposal for this project are amended as follows:

Special Provisions

1. On page 154, lines 23 through 26 are revised to read as follows:

   1. 93W, SE quadrant, 10.5 x 12 x 7.42 feet deep
   2. 93E, NW quadrant, 10.5 x 12 x 6.86 feet deep
   3. 94W, NE quadrant, 12 x 7.5 x 9.41 feet deep
   4. 94E, NW quadrant, 12 x 7.5 x 9.1 feet deep

2. On page 159, lines 9 through 13 are revised to read as follows:

   1. The Contractor shall maintain a minimum clearance of ten feet from all electric transmission and distribution lines throughout the work area. The minimum clearance of less than ten feet will only be allowed with prior authorization by the Engineer for an approved construction shield.

3. On page 159, lines 41 through 52 are revised to read as follows:

   Construction Shield
   The Contractor shall design, furnish, and install a construction shield to allow reduced required clearance near the existing aerial suspended electric transmission and distribution lines on the Alaskan Way Viaduct.

   A minimum of 30 days prior to installation of the construction shield, the Contractor shall submit a plan and working drawings in accordance with Section 6-01.9 for review and approval by the Engineer. The shield shall be constructed of a minimum of 0.25 inch thick steel plate, meeting applicable ASTM or ANSI specification.

   The construction shield shall be removed when no longer required.

4. On page 163, lines 1 through 8 are revised to read as follows:

   1. Construct Temporary Waterfront Pedestrian/Bicycle Facility

2. Verify Underground Utility Locations by Potholing
3. Complete Water Line work for Thrust block collar
4. Remove abandoned Railroad Rails as shown in the Plans
5. Clear and grub trees and vegetation
6. Repair Pavement
7. Stripe parking spaces for public use

5. On page 165, lines 4 through 13 are revised to read as follows:

   All excavated soil from work performed at the Bridge No. 99/540NB&SB Pier 93 and 94 footing construction site, including all incidental excavation performed adjacent to the footing excavation pits as required for removal of existing railroad tracks, water main related construction work, and excavation work included on plan sheet UT3, shall be considered as contaminated material. The site history, environmental studies, and test results performed previously by the Contracting Agency indicate a potential for encountering soil, wood waste, and miscellaneous debris contaminated with petroleum, metals, solvents and creosote. Hydrogen sulfide may also be present. Dangerous waste per WAC 173-303 is not anticipated to be encountered at the site.

6. On page 165, lines 27 through 30 are revised to read as follows:

   Contractor personnel working in contaminated material areas shall be trained in accordance with applicable regulatory requirements and thoroughly briefed on the anticipated hazards, safety equipment to be employed, safety practices to be followed, and emergency procedures and communications in accordance with Labor and Industries Regulations. The Contractor is responsible for the health and safety of workers and the public related to contaminated substances within the project limits.

7. Page 165, line 44, through page 166, line 11 is deleted and replaced with the following:

   Handling of Contaminated Material
   The Contractor shall excavate material to the neat line limits for structure excavation of the work areas. No excavation beyond the neat line limits will be required or allowed.

   All excavated material shall be handled and stored in a manner that prevents the spread of contamination to adjacent soil or water.

   Contaminated material identified in the areas noted above shall not be stockpiled, but shall be directly placed in the hauling vehicle for disposal at a legally permitted disposal facility.

   If unidentified encounters of contaminated soil are discovered or field conditions are different than described above based on visual or olfactory observations, excavated soil will require stockpiling and sampling to characterize the soil and determine disposal requirements. The Contractor shall prepare a stockpile area that will allow for ease of sampling and testing and ease of load-out once characterization is complete. The Contractor shall divert water from the stockpile containment area, cover the containment area

with 4-6 mil polyethylene liner, place excavated soil on the liner, and cover the soil with polyethylene sheeting. The edges of the sheeting shall be secured in accordance with WSDOT 2006 Standard Specification 8-01.3(5) to keep the sheeting in place. The stockpiles shall be covered at all times when not being worked. The Contractor shall inspect the stockpiles daily and maintain the sheeting, replacing any worn or ripped sections of sheeting. A stockpile of contaminated soil shall not be stored longer than 90 days.

The stockpile area shall be large enough and constructed properly to collect water that dewaters from the stockpile; it shall also be isolated from precipitation and storm water. Any water that collects within the stockpile area will require sampling and/or treatment prior to disposal.

The Contractor's excavation operations shall comply with the sections **Archeological and Historical Objects, Structure Excavation,** and **Dewatering** as supplemented in these Special Provisions.

Disposal of Contaminated Material
The following contact information for local disposal facilities that will accept contaminated material and wood waste generated by this project is supplied for the Contractor's convenience.

8. On page 168, the following is inserted after line 24:

Disposal of contaminated material will be measured per ton. Disposal of excavated material will be measured at the disposal facility and the Contractor shall provide the Engineer with a copy of each shipping manifest or bill of lading indicating the amount of contaminated material and wood waste hauled to disposal.

9. On page 168, lines 35 through 40 are deleted and replaced with the following:

"Disposal of Contaminated Material", per ton.
The unit contract price per ton for "Disposal of Contaminated Material" shall be full pay for all costs associated with disposal of the contaminated material including loading from the project site and hauling to the disposal site.

10. On page 169, lines 48 through 52 are revised to read as follows:

All costs in connection with all excavation performed at the Bridge No. 99/540NB&SB Piers 93 and 94 footing construction site as specified, including removal and disposal, shall be included in the unit contract price per cubic yard for "Contaminated Material Excavation Incl. Haul" and the unit contract price per ton for "Disposal of Contaminated Material", as specified in Section 2-02.5 as supplemented in these Special Provisions.

11. On page 177, lines 26 through 28 are revised to read as follows:

2. Treat the water discharge adequately to meet conditions in the King County Industrial Waste Major Discharge Authorization Number 4130-01, the King County Industrial Waste Local Discharge Limits covered in King County Public Rules and Regulations [PUT 8-13 (PR)], and project specific limits for:

12. On page 179, lines 16 through 19 are revised to read as follows:

c. Treat the water discharge adequately to meet conditions in the King County Industrial Waste Major Discharge Authorization Number 4130-01, the King County Industrial Waste Local Discharge Limits covered in King County Public Rules and Regulations [PUT 8-13 (PR)], and project specific limits for:

13. On page 213, the following is inserted after line 48:

DRAINS

Description
Section 7-01.1 is supplemented with the following:

This work shall also consist of protecting the temporary drain pipe and attaching the new drains to the existing drains on the piers after the retrofit.

Materials
Section 7-01.2 is supplemented with the following:

Steel pipe straps shall meet the requirements of Section 9-05.4(9)B.

Construction Requirements
Section 7-01.3 is supplemented with the following:

The Contractor shall maintain drainage during construction activities as shown in the Plans. The Contractor shall attach the new drain pipe with steel pipe straps as shown in the Plans.

Steel plates are a suggested method for temporary pipe drain protection. If used, steel plates shall meet the dimensions shown in the Plans. Configuration of temporary pipe drain protection shall be approved by the Engineer before installation.

Payment
Section 7-01.5 is supplemented with the following:

All costs for protecting the temporary drain pipe and attaching the new drain pipe to the existing columns shall be included in the unit contract price per linear foot for "Drain Pipe __ In. Diam.", per linear foot.

MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

Description
Section 7-05.1 is supplemented with the following:

This work consists of constructing junction boxes for drains. Junction boxes for drains shall only be used where private storm service drain, or other small diameter drain pipe, needs to be connected with an existing

culvert. Sanitary, or combined storm and sanitary, connections will not be allowed with a culvert system or with a junction box to a culvert system.

Materials
Section 7-05.2 is supplemented with the following:

Materials shall meet the requirements shown in City of Seattle Standard Plans No. 230 and 277 in Appendix E.

Construction Requirements
Section 7-05.3 is supplemented with the following:

The Contractor shall furnish and install the junction boxes for drains as shown in the Plans and Appendix E. Reinforcing steel shall be installed as shown in WSDOT Standard Plan B-5.20-00.

Measurement
Section 7-05.4 is supplemented with the following:

Junction boxes for drains will be measured per each, for each junction box installed and accepted.

Payment
Section 7-05.5 is supplemented with the following:

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

"Junction Box for Drains", per each.
The unit contract price per each shall be full pay for furnishing and installing the "Junction Box for Drains" as specified.

14. On page 214, lines 10 through 47 are deleted and replaced with the following:

WATER MAINS

Materials
Section 7-09.2 is supplemented with the following:

Concrete for the thrust collar shall meet the requirements of Concrete Class 4000.

Reinforcing steel shall meet the requirements of Section 9-07.

Construction Requirements
Section 7-09.3(21) is supplemented with the following:

Water Main Concrete Thrust Collar and Mech. Joint Restraint
The water main concrete thrust collars and mechanical joint restraints shall be constructed as detailed in the Plans.

The Contractor shall notify the Engineer a minimum of 7 calendar days prior to beginning water main work.

Furnishing and installation of all piping, pipe fittings, and mechanical joint restraints will be performed by Seattle Public Utilities (SPU). The Contractor shall be responsible for all other items of work associated with the lump sum bid item "Water Main Conc. Thrust Collars and Mechanical Joint Restraints".

The water main concrete thrust collars shall be cast in place and formed on all sides, except the bottom surface which will bear against undisturbed soil. Concrete shall be kept clear of all joints, fittings, bolts, etc. to allow for future dismantling and removal.

The Contractor shall coordinate through the Engineer to allow SPU to prepare for the waterline shut down. The waterline shall be out of service and de-pressurized during the time of construction. No construction activities shall begin on Bent 93W until the concrete for the thrust collar has reached the compressive strength of 4000 psi.

Payment
Section 7-09.5 is supplemented with the following:

"Water Main Conc. Thrust Collars and Mech. Jt. Restraints", lump sum.
The lump sum contract price for "Water Main Conc. Thrust Collars and Mech. Jt. Restraints" shall be full pay for all costs to complete the water main work as specified, including excavation, installation of concrete thrust collars, backfilling, and restoring surface pavement.

15. On page 216, the following is inserted after line 48:

APPENDIX E:
City of Seattle Standard Plans No. 230 and 277, Pages 1 through 2.

Plans

1. Plan Sheets 2, 3, 5, 6, 7, 8, 11, 13, 14, 15, 17, 27, 32, 39, and 40 are revised as shaded and noted.

Proposal

1. On page 1, Bid Item No. 6 the UNIT OF MEASURE and PLAN QUANTITY are revised.

2. On page 2, Bid Item No. 10 the PLAN QUANTITY is revised.

3. On page 3:
   Bid Item No. 28 the TOTAL AMOUNT DOLLARS is revised.
   Bid Item No. 34 the PLAN QUANTITY is revised.

5. On page 5:
   Bid Item No. 48, the PLAN QUANTITY is revised.
   Bid Items No. 52 and 53 are added.

Bidders shall furnish the Secretary of Transportation with evidence of the receipt of this addendum. This addendum will be incorporated in the contract when awarded and when formally executed.

Pasco Bakotich, P.E.
State Design Engineer

Attachment:
Sheets 2, 3, 5, 6, 7, 8, 11, 13, 14, 15, 17, 27, 32, 39, and 40 of the Plans (Rev. 8/14/2007)
Pages 1, 2, 3, and 5 of the Proposal (Rev. 8/15/2007)
Appendix E

Washington State
Department of Transportation
Olympia, Washington 98504

SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805
King County

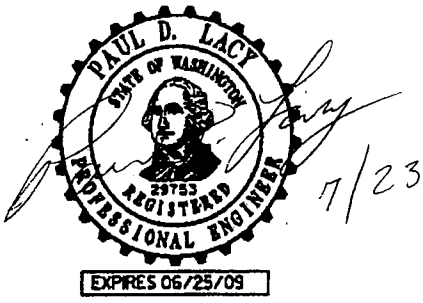
Notice to All Planholders

The Project Engineer's office assigned to answer questions regarding these bid documents and to show this project to prospective bidders is:

Mike Askarian, P.E.
6431 Corson Avenue
Seattle, WA. 98108-3445
(206) 768-5860

Pasco Bakotich, P.E.
State Design Engineer

As the Engineer in direct responsible charge of developing these contract provisions, I certify these provisions have been developed or incorporated into this project under my supervision or as a result of certified specifications provided by other licensed professionals.



7/23/07

Paul Lacy, P.E.
Project Engineer

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INTRODUCTION

The following Amendments and Special Provisions shall be used in conjunction with the 2006 Standard Specifications for Road, Bridge, and Municipal Construction.

AMENDMENTS TO THE STANDARD SPECIFICATIONS

The following Amendments to the Standard Specifications are made a part of this contract and supersede any conflicting provisions of the Standard Specifications. For informational purposes, the date following each Amendment title indicates the implementation date of the Amendment or the latest date of revision.

Each Amendment contains all current revisions to the applicable section of the Standard Specifications and may include references which do not apply to this particular project.

SECTION 1-01, DEFINITIONS AND TERMS
August 6, 2007

1-01.3 Definitions
The first paragraph under **Completion Dates** is revised to read:

> Substantial Completion Date is the day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, all the initial plantings are completed and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the physical completion of the total contract.

SECTION 1-04, SCOPE OF THE WORK
April 3, 2006

1-04.6 Variation in Estimated Quantities
The third paragraph beginning with "If the adjusted final quantity of any items", is revised to read:

> If the adjusted final quantity of any item does not vary from the quantity shown in the proposal by more than 25%, then the Contractor and the Contracting Agency agree that all work under that item will be performed at the original contract unit price.

SECTION 1-06, CONTROL OF MATERIAL
August 6, 2007

1-06.1 Approval of Materials Prior To Use
The second sentence in the first paragraph is revised to read:

> The Contractor shall use the Qualified Product List (QPL), the Aggregate Source Approval (ASA) Database, or the Request for Approval of Material (RAM) form.

Number 1 under the second paragraph is revised to read:

1. Shall be new, unless the Special Provisions or Standard Specifications permit otherwise;

1-06.1(1) Qualified Products List (QPL)

This section is supplemented with the following:

The current QPL can be accessed on-line at www.wsdot.wa.gov/biz/mats/QPL/QPL.cfm

The following new sub-section is inserted to follow 1-06.1(2).

1-06.1(3) Aggregate Source Approval (ASA) Database

The ASA is a database containing the results of WSDOT preliminary testing of aggregate sources. This database is used by the Contracting Agency to indicate the approval status of these aggregate sources for applications that require preliminary testing as defined in the contract. The ASA 'Aggregate Source Approval Report' identifies the currently approved applications for each aggregate source listed. The acceptance and use of these aggregates is contingent upon additional job sampling and/or documentation.

Aggregates approved for applications on the ASA 'Aggregate Source Approval Report' not conforming to the specifications, not fulfilling the acceptance requirements, or improperly handled or installed, shall be replaced at the Contractor's expense.

For questions regarding the approval status of an aggregate source, contact the WSDOT Regional Materials Engineer for the Region the source is located in. The Contracting Agency reserves the right to make revisions to the ASA database at anytime.

If there is a conflict between the ASA database and the contract, then the contract shall take precedence over the ASA database in accordance with Section 1-04.2. The ASA database can be accessed on-line at www.wsdot.wa.gov/biz/mats/ASA

1-06.2(2)D Quality Level Analysis

Item 9 under the first paragraph is revised to read:

9. Determine the Composite Pay Factor (CPF) for each lot.

$$CPF = \frac{f_1(\overline{PF_1}) + f_2(\overline{PF_2}) + \cdots + f_i(\overline{PF_i})}{\sum f_i}$$

$$i = 1 \text{ to } j$$

where: f_i = price adjustment factor listed in these Specifications for the applicable material

j = number of constituents being evaluated

1-06.5 Vacant

This section including title is revised to read:

1-06.5 Owners Manuals and Operating Instructions

For equipment and materials that are permanently incorporated in the Work, the Contractor shall provide to the Project Engineer all owners manuals and operating instructions furnished by the equipment or material manufacturer.

SECTION 1-07, LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC
August 6, 2007

1-07.9(1) General

The fifth paragraph is revised to read:

If employing labor in a class not listed in the contract provisions on state funded projects only, the Contractor shall request a determination of the correct wage and benefits rate for that class and locality from the Industrial Statistician, Washington State Department of Labor and Industries (State L&I), and provide a copy of those determinations to the Engineer.

The fifth paragraph is supplemented with the following new paragraph:

If employing labor in a class not listed in the contract provisions on federally funded projects, the Contractor shall request a determination of the correct wage and benefits for that class and locality from the U. S. Secretary of Labor through the project engineer's office. Generally, the Contractor initiates the request by preparing Standard Form 1444 Request for Authorization of Additional Classification and Rate, available at http://www.wdol.gov/docs/sf1444.pdf, and submitting it to the Project Engineers' office for further action.

1-07.10 Worker's Benefits

The fourth paragraph is revised to read:

The Public Works Contract Division of the Washington State Department of Labor and Industries will provide the Contractor with applicable industrial insurance and medical aid classification and premium rates. After receipt of *Revenue Release* from the Washington State Department of Revenue, the contracting agency will verify through the Department of Labor and Industries that the Contractor is current with respect to the payments of industrial insurance and medical aid premiums.

1-07.11(10)B Required Records and Retention

The second and third paragraphs under **"Monthly Employment Utilization Reports"** are deleted.

1-07.15 Temporary Water Pollution/Erosion Control

The first paragraph is revised to read:

In an effort to prevent, control, and stop water pollution and erosion within the project, thereby protecting the work, nearby land, streams, and other bodies of water, the Contractor shall perform all work in strict accordance with all Federal, State, and local laws and regulations governing waters of the State, as well as permits acquired for the project.

1-07.17 Utilities and Similar Facilities

This section is revised to read:

The Contractor shall protect all private and public utilities from damage resulting from the Work. Among others, these utilities include: telephone, telegraph, and power lines; pipelines, sewer and water lines; railroad tracks and equipment; and highway lighting and signing systems. All costs required to protect public and private utilities shall be at the Contractor's expense, except as provided otherwise in this section.

Chapter 19.122 of the Revised Code of Washington (RCW) relates to underground utilities. In accordance with this RCW, the Contractor shall call the One-Number Locator Service for field location of utilities. If no locator service is available for the area, notice shall be provided individually to those owners of utilities known to, or suspected of, having underground facilities within the area of the proposed excavation.

This section is supplemented with the following two new sub-sections:

1-07.17(1) Utility Construction, Removal or Relocation by the Contractor

If the Work requires removing or relocating a utility, the contract will assign the task to the Contractor or the utility owner. When the task is assigned to the Contractor it shall be performed in accordance with the Plans and Special Provisions. New utility construction shall be performed according to the appropriate contract requirements.

To ease or streamline the Work for its own convenience, the Contractor may desire to ask utility owners to move, remove, or alter their equipment in ways other than those listed in the Plans or Special Provisions. The Contractor shall make the arrangements and pay all costs that arise from work performed by the utility owner at the Contractor's request. Two weeks prior to implementing any such utility work, the Contractor shall submit plans and details to the Engineer for approval describing the scope and schedule of all work performed at the Contractors request by the utility owner.

In some cases, the Plans or special provisions may not show all underground facilities. If the Work requires these to be moved or protected, the Engineer will assign the task to others or issue a written change order requiring the Contractor to do so as provided in Section 1-04.4.

1-07.17(2) Utility Construction, Removal or Relocation by Others

Any authorized agent of the Contracting Agency or utility owners may enter the highway right-of-way to repair, rearrange, alter, or connect their equipment. The Contractor shall cooperate with such efforts and shall avoid creating delays or hindrances to those doing the work. As needed, the Contractor shall arrange to coordinate work schedules.

If the contract provides notice that utilities will be adjusted, relocated, replaced, or constructed by others during the prosecution of the work, the Special Provisions will establish the utility owners anticipated completion. The Contractor shall carry out the Work in a way that will minimize interference and delay for all forces involved. Any costs incurred prior to the utility owners anticipated completion (or if no completion is specified, within a reasonable period of time) that results from the coordination and prosecution of the Work regarding utility adjustment, relocation, replacement, or construction shall be at the Contractor's expense as provided in Section 1-05.14.

When others delay the Work through late removal or relocation of any utility or similar facility, the Contractor shall adhere to the requirements of Section 1-04.5. The Contracting Agency will either suspend Work according to Section 1-08.6, or order the Contractor to coordinate the Work with the work of the utility owner in accordance with Section 1-04.4. When ordered to coordinate the Work with the work of the utility owner, the Contractor shall prosecute the Work in a way that will minimize interference and delay for all forces involved.

SECTION 1-08, PROSECUTION AND PROGRESS
August 6 , 2007

1-08.1 Subcontracting

The eighth paragraph (beginning with - On all projects funded with both Contracting Agency funds and Federal assistance ...) is supplemented with the following:

The Contractor has the option of submitting actual MBE/WBE or DBE payment data, on Federally assisted, Federally assisted and Contracting agency funded, and Contracting Agency funded only contracts to the contracting agency on a monthly basis using the Contract Monitoring and Tracking System (CMATS) through the BizWeb application located at http://www.omwbe.wa.gov/bizwebatwashington. Use of CMATS will become a requirement for all contractors effective January 7, 2008.

1-08.3 Progress Schedule

Section 1-08.3 and all subsections are deleted in their entirety and replaced with the following:

1-08.3 Progress Schedule

1-08.3(1) General Requirements

The Contractor shall submit Type A or Type B Progress Schedules and Schedule Updates to the Engineer for approval. Schedules shall show work that complies with all time and order of work requirements in the contract. Scheduling terms and practices shall conform to the standards established in *Construction Planning and Scheduling, Second Edition*, published by the Associated General Contractors of America. Except for Weekly Look-Ahead Schedules, all schedules shall meet these General Requirements, and provide the following information:

1. Include all activities necessary to physically complete the project.
2. Show the planned order of work activities in a logical sequence.
3. Show durations of work activities in working days as defined in Section 1-08.5.
4. Show activities in durations that are reasonable for the intended work.
5. Define activity durations in sufficient detail to evaluate the progress of individual activities on a daily basis.
6. Show the physical completion of all work within the authorized contract time.

The Contracting Agency allocates its resources to a contract based on the total time allowed in the contract. The Contracting Agency may accept a Progress Schedule indicating an early physical completion date but cannot guarantee the Contracting Agency's resources will be available to meet an accelerated schedule. No additional compensation will be allowed if the Contractor is not able to meet

their accelerated schedule due to the unavailability of Contracting Agency's resources or for other reasons beyond the Contracting Agency's control.

If the Engineer determines that the Progress Schedule or any necessary Schedule Update does not provide the required information, then the schedule will be returned to the Contractor for correction and resubmittal.

The Engineer's approval of any schedule shall not transfer any of the Contractor's responsibilities to the Contracting Agency. The Contractor alone shall remain responsible for adjusting forces, equipment, and work schedules to ensure completion of the work within the time(s) specified in the contract.

1-08.3(2) Progress Schedule Types

Type A Progress Schedules are required on all projects that do not contain the bid item for Type B Progress Schedule. Type B Progress Schedules are required on all projects that contain the bid item for Type B Progress Schedule. Weekly Look-Ahead Schedules and Schedule Updates are required on all projects.

1-08.3(2)A Type A Progress Schedule

The Contractor shall submit five copies of a Type A Progress Schedule no later than 10 days after the date the contract is executed, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

1-08.3(2)B Type B Progress Schedule

The Contractor shall submit a preliminary Type B Progress Schedule no later than five calendar days after the date the contract is executed. The preliminary Type B Progress Schedule shall comply with all of these requirements and the requirements of Section 1-08.3(1), except that it may be limited to only those activities occurring within the first 60 working days of the project.

The Contractor shall submit five copies of a Type B Progress Schedule no later than 30 calendar days after the date the contract is executed. The schedule shall be a critical path method (CPM) schedule developed by the Precedence Diagramming Method (PDM). Restraints may be utilized, but may not serve to change the logic of the network or the critical path. The schedule shall display at least the following information:

Contract Number and Title
Construction Start Date
Critical Path
Activity Description
Milestone Description
Activity Duration
Predecessor Activities
Successor Activities
Early Start (ES) and Early Finish (EF) for each activity
Late Start (LS) and Late Finish (LF) for each activity

Total Float (TF) and Free Float (FF) for each activity
Physical Completion Date
Data Date

The Engineer will evaluate the Type B Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

1-08.3(2)C Vacant

1-08.3(2)D Weekly Look-Ahead Schedule

Each week that work will be performed, the Contractor shall submit a Weekly Look-Ahead Schedule showing the Contractor's and all subcontractors' proposed work activities for the next two weeks. The Weekly Look-Ahead Schedule shall include the description, duration and sequence of work, along with the planned hours of work. This schedule may be a network schedule, bar chart, or other standard schedule format. The Weekly Look-Ahead Schedule shall be submitted to the Engineer by the midpoint of the week preceding the scheduled work or some other mutually agreed upon submittal time.

1-08.3(3) Schedule Updates

The Engineer may request a Schedule Update when any of the following events occur:

1. The project has experienced a change that affects the critical path.
2. The sequence of work is changed from that in the approved schedule.
3. The project is significantly delayed.
4. Upon receiving an extension of contract time.

The Contractor shall submit five copies of a Type A or Type B Schedule Update within 15 calendar days of receiving a written request, or when an update is required by any other provision of the contract. A "significant" delay in time is defined as 10 working days or 10 percent of the original contract time, whichever is greater.

In addition to the other requirements of this Section, Schedule Updates shall reflect the following information:

1. The actual duration and sequence of as-constructed work activities, including changed work.
2. Approved time extensions.
3. Any construction delays or other conditions that affect the progress of the work.
4. Any modifications to the as-planned sequence or duration of remaining activities.
5. The physical completion of all remaining work in the remaining contract time.

Unresolved requests for time extensions shall be reflected in the Schedule Update by assuming no time extension will be granted, and by showing the effects to

follow-on activities necessary to physically complete the project within the currently authorized time for completion.

1-08.3(4) Measurement

No specific unit of measurement shall apply to the lump sum item for Type B Progress Schedule.

1-08.3(5) Payment

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

"Type B Progress Schedule", lump sum.
The Lump Sum price shall be full pay for all costs for furnishing the Type B Progress Schedule and preliminary Type B Progress Schedule.

Payment of 80 percent of the lump sum price will be made upon approval of the Progress Schedule.

Payment will be increased to 100 percent of the lump sum price upon completion of 80 percent of the original total contract award amount.

All costs for providing Type A Progress Schedules and Weekly Look-Ahead Schedules are considered incidental to other items of work in the contract.

No payment will be made for Schedule Updates that are required due to the Contractors operations. Schedule Updates required by events that are attributed to the actions of the Contracting Agency will be paid for in accordance with Section 1-09.4.

1-08.4 Prosecution of Work

The first sentence is revised to read:

The Contractor shall begin work within 21 calendar days from the date of execution of the contract by the Contracting Agency, unless otherwise approved in writing.

1-08.5 Time for Completion

This section is revised to read:

The Contractor shall complete all physical contract work within the number of "working days" stated in the Contract Provisions or as extended by the Engineer in accordance with Section 1-08.8. Every day will be counted as a "working day" unless it is a nonworking day or an Engineer determined unworkable day. A nonworking day is defined as a Saturday, a Sunday, a whole or half day on which the contract specifically prohibits work on the critical path of the Contractor's approved progress schedule, or one of these holidays: January 1, the third Monday of January, the third Monday of February, Memorial Day, July 4, Labor Day, November 11, Thanksgiving Day, the day after Thanksgiving, and Christmas Day. When any of these holidays fall on a Sunday, the following Monday shall be counted a nonworking day. When the holiday falls on a Saturday, the preceding Friday shall be counted a nonworking day. The days between December 25 and January 1 will be classified as nonworking days.

An unworkable day is defined as a half or whole day the Engineer declares to be unworkable because of weather or conditions caused by the weather that prevents satisfactory and timely performance of the work shown on the critical path of the Contractor's approved progress schedule. Other conditions beyond the control of the Contractor may qualify for an extension of time in accordance with Section 1-08.8.

Contract time shall begin on the first working day following the 21st calendar day after the date the Contracting Agency executes the contract. If the Contractor starts work on the project at an earlier date, then contract time shall begin on the first working day when onsite work begins. The contract provisions may specify another starting date for contract time, in which case, time will begin on the starting date specified.

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

The Engineer will give the Contractor written notice of the physical completion date for all work the contract requires. That date shall constitute the physical completion date of the contract, but shall not imply the Secretary's acceptance of the work or the contract.

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

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:

    a. Certified Payrolls (Federal-aid Projects)
    b. Material Acceptance Certification Documents
    c. Annual Report of Amounts Paid as MBE/WBE Participants or Quarterly Report of Amounts Credited as DBE Participation, as required by the Contract Provisions.
    d. Final Contract Voucher Certification

1-08.8 Extensions of Time

Section 1-08.8 is revised to read:

The Contractor shall submit any requests for time extensions to the Engineer in writing no later than 10 working days after the delay occurs. The requests for time extension shall be limited to the affect on the critical path of the Contractor's approved schedule attributable to the change or event giving rise to the request.

To be considered by the Engineer, the request shall be in sufficient detail (as determined by the Engineer) to enable the Engineer to ascertain the basis and amount of the time requested. The request shall include an updated schedule that supports the request and demonstrates that the change or event: (1) had a specific impact on the critical path, and except in cases of concurrent delay, was the sole cause of such impact, and (2) could not have been avoided by resequencing of the work or by using other reasonable alternatives. If a request combined with previous extension requests, equals 20 percent or more of the original contract time then the Contractor's letter of request must bear consent of Surety. In evaluating any request, the Engineer will consider how well the Contractor used the time from contract execution up to the point of the delay and the effect the delay has on any completion times included in the special provisions. The Engineer will evaluate and respond within 15 calendar days of receiving the request.

The authorized time for physical completion will be extended for a period equal to the time the Engineer determines the work was delayed because of:

1. Adverse weather causing the time requested to be unworkable, provided that the Engineer had not already declared the time to be unworkable and the Contractor has filed a written protest according to Section 1-08.5.

2. Any action, neglect, or default of the Contracting Agency, its officers, or employees, or of any other contractor employed by the Contracting Agency.

3. Fire or other casualty for which the Contractor is not responsible.

4. Strikes.

5. Any other conditions for which these Specifications permit time extensions such as:

    a. In Section 1-04.4 if a change increases the time to do any of the work including unchanged work.
    b. In Section 1-04.5 if increased time is part of a protest that is found to be a valid protest.
    c. In Section 1-04.7 if a changed condition is determined to exist that caused a delay in completing the contract.
    d. In Section 1-05.3 if the Contracting Agency does not approve properly prepared and acceptable drawings within 30 calendar days.
    e. In Section 1-07.13 if the performance of the work is delayed as a result of damage by others.
    f. In Section 1-07.17 if the removal or the relocation of any utility by forces other than the Contractor caused a delay.
    g. In Section 1-07.24 if a delay results from all the right of way necessary for the construction not being purchased and the special provisions does not make specific provisions regarding unpurchased right of way.

h. In Section 1-08.6 if the performance of the work is suspended, delayed, or interrupted for an unreasonable period of time that proves to be the responsibility of the Contracting Agency.
i. In Section 1-09.11 if a dispute or claim also involves a delay in completing the contract and the dispute or claim proves to be valid.
j. In Section 1-09.6 for work performed on a force account basis.

6. If the actual quantity of work performed for a bid item was more than the original plan quantity and increased the duration of a critical activity. Extensions of time will be limited to only that quantity exceeding the original plan quantity.

7. Exceptional causes not specifically identified in items 1 through 6, provided the request letter proves the Contractor had no control over the cause of the delay and could have done nothing to avoid or shorten it.

Working days added to the contract by time extensions, when time has overran, shall only apply to days on which liquidated damages or direct engineering have been charged, such as the following:

If substantial completion has been granted prior to all of the authorized working days being used, then the number of days in the time extension will eliminate an equal number of days on which direct engineering charges have accrued. If the substantial completion date is established after all of the authorized working days have been used, then the number of days in the time extension will eliminate an equal number of days on which liquidated damages or direct engineering charges have accrued.

The Engineer will not allow a time extension for any cause listed above if it resulted from the Contractor's default, collusion, action or inaction, or failure to comply with the contract.

The Contracting Agency considers the time specified in the special provisions as sufficient to do all the work. For this reason, the Contracting Agency will not grant a time extension for:

- Failure to obtain all materials and workers unless the failure was the result of exceptional causes as provided above in subsection 7;
- Changes, protests, increased quantities, or changed conditions (Section 1-04) that do not delay the completion of the contract or prove to be an invalid or inappropriate time extension request;
- Delays caused by nonapproval of drawings or plans as provided in Section 1-05.3;
- Rejection of faulty or inappropriate equipment as provided in Section 1-05.9;
- Correction of thickness deficiency as provided in Section 5-05.5(1)B.

The Engineer will determine whether the time extension should be granted, the reasons for the extension, and the duration of the extension, if any. Such determination will be final as provided in Section 1-05.1.

1-08.9 Liquidated Damages

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

When the contract work has progressed to the extent that the Contracting Agency has full use and benefit of the facilities, both from the operational and safety standpoint, all the initial plantings are completed and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains to physically complete the total contract, the Engineer may determine the contract work is substantially complete.

SECTION 1-09, MEASUREMENT AND PAYMENT
August 6, 2007

1-09.2(1) General Requirements for Weighing Equipment

The last paragraph is supplemented with the following:

The material delivery point is defined as the location where the material is incorporated into the permanent work.

1-09.6 Force Account

The first sentence in the last paragraph under 1. For Labor is revised to read:

In addition to compensation for direct labor costs defined above, the Contracting Agency will pay Contractor 29 percent of the sum of the costs calculated for labor reimbursement to cover project overhead, general company overhead, profit, bonding, insurance required by Section 1-07.10 and 1-07.18, Business & Occupation tax, and any other costs incurred.

The last paragraph under 2. **For Materials** is revised to read:

In addition to compensation for direct materials cost, the Contracting Agency will pay the Contractor 21 percent of the sum of the costs calculated for materials reimbursement to cover project overhead, general company overhead, profit, bonding, insurance required by Section 1-07.10 and 1-07.18, Business & Occupation tax, and any other costs incurred.

The first sentence in the fifth paragraph under 3. **For Equipment** is revised to read:

The Contracting Agency will add 21 percent to equipment costs to cover project overhead, general company overhead, profit, bonding, insurance required by Section 1-07.10 and 1-07.18, Business & Occupation tax, and any other costs incurred

The last paragraph under 3. **For Equipment** is revised to read:

Copies of the AGC/WSDOT Equipment Rental Agreement will be maintained on the Contracting Agency's web site at www.wsdot.wa.gov.

The second paragraph under 4. **For Services** is revised to read:

Except as noted below, the Contracting Agency will pay the Contractor an additional 21 percent of the sum of the costs included on invoices for specialized services to cover project overhead, general company overhead, profit, bonding, insurance required by Section 1-07.10 and 1-07.18, Business & Occupation tax, and any other costs incurred.

The first paragraph under 6. **For Contractor Markup on Subcontractor's Work** is revised to read:

6. **For Contractor Markup on Subcontractor's Work:** When work is performed on a force account basis by one or more approved subcontractors, by lower-tier subcontractors or suppliers, or through invoice by firm(s) acting in the manner of a subcontractor, the Contractor will be allowed an additional markup, from the table below, applied to the costs computed for work done by each subcontractor through Sections 1, 2, 3, and 4, to compensate for all administrative costs, including project overhead, general company overhead, profit, bonding, insurance required by 1-07.10 and 1-07.18, Business & Occupation tax, and any other costs incurred.

1-09.9(1) Retainage

The fourth paragraph is revised to read:

Release of the retainage will be made 60 days following the Completion Date (pursuant to RCW 39.12, and RCW 60.28) provided the following conditions are met:

1. On contracts totaling more than $20,000, a release has been obtained from the Washington State Department of Revenue.

2. Affidavits of Wages Paid for the Contractor and all Subcontractors are on file with the Contracting Agency (RCW 39.12.040).

3. A certificate of *Payment of Contributions Penalties and Interest on Public Works Contract* is received from the Washington State Employment Security Department.

4. Washington State Department of Labor and Industries (per section 1-07.10) shows the Contractor is current with payments of industrial insurance and medical aid premiums.

5. All claims, as provided by law, filed against the retainage have been resolved. In the event claims are filed and provided the conditions of 1, 2, 3 and 4 are met, the Contractor will be paid such retained percentage less an amount sufficient to pay any such claims together with a sum determined by the Contracting Agency sufficient to pay the cost of foreclosing on claims and to cover attorney's fees.

SECTION 1-10, TEMPORARY TRAFFIC CONTROL
August 6, 2007

1-10.1(1) Materials

This section is supplemented with the following:

Tall Channelizing Devices	9-35.13
Portable Temporary Traffic Control Signal	9-35.14

1-10.2(3) Conformance to Established Standards

The second and third sentences in the first paragraph are revised to read:

Judgment of the quality of devices furnished will be based upon *Quality Guidelines for Temporary Traffic Control Devices*, published by the American Traffic Safety Services Association. Copies of the *MUTCD* and *Quality Guidelines for Temporary Traffic Control Devices* may be purchased from the American Traffic Safety Services Association, 15 Riverside Parkway, Suite 100, Fredericksburg, Virginia 22406-1022.

The third sentence in the fourth paragraph is revised to read:

All Category 2 devices shall meet the requirements of NCHRP 350.

The fourth sentence in the fourth paragraph is deleted.

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

Crash testing is not required for these devices.

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

The condition of signs and traffic control devices shall be acceptable or marginal as defined in the book *Quality Guidelines for Temporary Traffic Control Device*s, and will be accepted based on a visual inspection by the Engineer.

1-10.3(3) Traffic Control Devices

This section is supplemented with the following new sub-section:

1-10.3(3)K Portable Temporary Traffic Control Signal

Where shown on an approved traffic control plan, the Contractor shall provide, operate, maintain and remove a portable temporary traffic control signal to provide alternating one-lane traffic operations on a two-way facility. A portable temporary traffic control signal shall be defined as a traffic control signal that may be trailer mounted, fully self-contained unit and designed so that it can be easily transported and deployed at different locations.

The Contractor shall submit the manufacturer's specifications for the portable temporary traffic control signal to the Engineer for approval at the pre-construction meeting or a minimum of two weeks prior to installation, whichever occurs first. A manufacturer's representative is required to demonstrate the capabilities of the temporary portable signal prior to approval and provide training to contractor personnel as necessary. The Contractor shall provide a minimum of one manufacturer trained operator on-site during all hours of portable traffic control signal operation.

Remote manual control of the portable traffic control signal by the Traffic Control Supervisor (TCS) or a qualified operator may be allowed if necessitated by work area or traffic conditions and as approved by the Engineer.

Maximum length between signal heads shall be 1500 ft unless otherwise shown on the plans or ordered by the Project Engineer in accordance with Section 1-04.4.

The WSDOT Region Signal Superintendent or designee will inspect the signal system at initial installation/operation and either provide or approve the signal timing. Final approval will be based on the results of the operational inspection.

If repairs or adjustments are required the Contractor shall respond immediately and provide flagger traffic control, if the roadway cannot be safely reopened to two-way traffic, until such time that repairs can be made. The Contractor shall either repair the signal or replace with a backup unit within 24 hours.

The Engineer will monitor the traffic, signal operation and order adjustments as needed based on traffic conditions. Timing adjustments require the approval of the Project Engineer.

As shown on the traffic control plan, temporary stop bars and "STOP HERE ON RED Signs (R10-6) shall be provided at the location traffic is expected to stop during the red display. The stop bar locations shall be illuminated at night. The illumination shall be the responsibility of the contractor and shall be adjusted to ensure minimal glare to motorists.

When not in operation, remove signal heads from the view of traffic or cover signal heads with bags made of non-ripping material specifically designed for covering signal heads. Do not use trash bags of any type. Remove, cover, fold, or turn all inappropriate signs so that they are not readable by oncoming traffic.

The Contractor shall provide and install all field wiring to make a complete and operational portable traffic control signal and shall maintain the system throughout the life of the contract.

Portable temporary traffic signals shall not be installed within 300 feet of at-grade railroad crossing, or if driveways or roadway access points are located between the portable temporary traffic control signals.

1-10.4(2) Item Bids with Lump Sum for Incidentals

The fourth paragraph is revised to read:

"Other Traffic Control Labor" will be measured by the hour. The hours of one person will be measured for each patrol route that the Contractor performs the work described under Section 1-10.3(2)E, Patrol and Maintain Traffic Control Measures, regardless of the actual number of persons per route. Hours will be measured for each person engaged in any one of the following activities:

- Operating a pilot vehicle during one-way piloted traffic control.
- Operating a traffic control vehicle or a chase vehicle during a rolling slowdown operation.
- Operating a vehicle or placing/removing traffic control devices during the setup or takedown of a lane closure. Performing preliminary work to prepare for placing and removing these devices.
- Operating any of the moving traffic control equipment, or adjusting signing during a mobile operation as described in Section 1-10.3(2)D.

- Placing and removing Class B construction signs. Performing preliminary work to prepare for placing and removing these signs.

- Relocation of Portable Changeable Message Signs within the project limits.

- Installing and removing Barricades, Traffic Safety Drums, Barrier Drums, Cones, Tubular Markers and Warning Lights and Flashers to carry out approved Traffic Control Plan(s). Performing preliminary work to prepare for installing these devices.

The fifth paragraph is revised to read:

Time spent on activities other than those described above will not be measured under this item.

Section 1-10.4(2) is supplemented with the following:

"Portable Temporary Traffic Control Signal" will be measured per each one time only for each portable temporary traffic control signal device used on the project. The final pay quantity shall be the maximum number of such devices in place at any one time as approved by the Engineer.

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

"Portable Temporary Traffic Control Signal," per each.
The unit contract price, when applied to the number of units measured for this item in accordance with Section 1-10.4(2), shall be full compensation for all costs of labor, materials and equipment incurred by the Contractor in performing the contract work as described in Section 1-10.3(3)K, including all costs for traffic control during a malfunction/failure of the portable traffic control signals and during replacement of failed/malfunctioning signals.

SECTION 2-02, REMOVAL OF STRUCTURES AND OBSTRUCTIONS
April 2, 2007

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

Item 3. is revised to read:

3. Make a vertical full depth saw cut between any existing pavement, sidewalk, curb, or gutter that is to remain and the portion to be removed. For portland cement concrete pavement removal, a second vertical full depth relief saw cut offset 12 inches to 18 inches from and parallel to the initial saw cut is also required, unless the Engineer approves otherwise.

2-03.3(2) Rock Cuts

This section is revised to read:

1. **Preserving Rock Below Subgrade.** The Contractor shall take care not to break down, loosen, or damage the rock under the subgrade line, except as provided by Section 2-03.3(3). Normally cuts will be made from the top, lift by lift, to protect the rock bench that will remain. The Contractor shall be responsible for methods used and for any damage caused to the roadbed, regardless of any previous approvals by the Engineer.

2. **Scaling and Dressing.** To leave rock cuts in a safe, stable condition, the Contractor shall scale and dress them, removing all loose fragments and rocks not firmly fastened to the rock slope. The Contractor shall also remove any overhanging rock the Engineer sees as a hazard to roadway users.

   If the Engineer requires it, the Contractor shall remove loose fragments and rocks lying outside the slope stakes. Payment for such extra work shall be by force account as provided in Section 1-09.6. The Contracting Agency will pay for loading and hauling these materials at the unit contract prices that apply or as provided in Section 1-04.4.

3. **Drilling and Blasting.** Not less than two weeks prior to commencing drilling and blasting operations or at any time the Contractor proposes to change the drilling and blasting methods, the Contractor shall submit a blasting plan to the Engineer for review. The blasting plan shall contain the full details of the drilling and blasting patterns and controls the Contractor proposes to use for both the controlled and production blasting. The blasting plan submittal is required for all blasting operations and shall contain the following minimum information:

   a) Station limits of proposed shot.

   b) Plan and section views of proposed drill pattern including free face, burden, blast hole spacing, blast hole diameter, blast hole angles, lift height, and subdrill depth.

   c) Loading diagram showing type and amount of explosives, primers, initiators, and location and depth of stemming.

   d) Initiation sequence of blast holes including delay times and delay system.

   e) Manufacturer's data sheets for all explosives, primers, and initiators to be employed.

   Review of the blasting plan by the Engineer shall not relieve the Contractor of the responsibility for the accuracy and adequacy of the plan when implemented in the field.

   When blasting to establish slopes $^1/_2$ to 1 or steeper, and more than 10 feet high, the Contractor shall use controlled blasting. The Engineer may require the

Contractor to use controlled blasting to form the faces of other slopes, even if the slopes could be formed by nonblasting methods.

Controlled blasting refers to the controlled use of explosives and blasting accessories in carefully spaced and aligned drill holes to provide a free surface or shear plane in the rock along the specified backslope. Controlled blasting techniques covered by this specification include presplitting and cushion blasting.

In addition to the blasting plan submittal, when using controlled blasting the Contractor shall:

a) Prior to commencing full-scale blasting operations, the Contractor shall demonstrate the adequacy of the proposed blast plan by drilling, blasting, and excavating short test sections, up to 100 feet in length, to determine which combination of method, hole spacing, and charge works best. When field conditions warrant, the Contractor may be ordered to use test section lengths less than 100 feet.

   Unless otherwise approved by the Engineer, the Contractor shall begin the tests with the controlled blast holes spaced 30-inches apart, then adjust if needed, until the Engineer approves the spacing to be used for full-scale blasting operations.

b) The Contractor shall completely remove all overburden soil and loose or decomposed rock along the top of the excavation for a distance of at least 30 feet beyond the end of the production hole drilling limits, or to the end of the cut, before drilling the presplitting holes.

c) The controlled blast holes shall be not less than $2^1/_2$ inches nor more than 3 inches in diameter.

d) The Contractor shall control drilling operations by the use of the proper equipment and technique to ensure that no hole shall deviate from the plane of the planned slope by more than 9 inches either parallel or normal to the slope. Drill holes exceeding these limits shall not be paid for unless satisfactory slopes are being obtained.

e) Controlled blast holes shall extend a minimum of 30 feet beyond the limits of the production holes to be detonated, or to the end of the cut as applicable.

f) The length of controlled blast holes for any individual lift shall not exceed 20 feet unless the Contractor can demonstrate to the Engineer the ability to stay within the above tolerances and produce a uniform slope. If greater than 5 percent of the presplit holes are misaligned in any one lift, the Contractor shall reduce the height of the lifts until the 9-inch alignment tolerance is met. Upon satisfactory demonstration, the length of holes may be increased to a maximum of 60 feet with written approval of the Engineer.

g) When the cut height requires more than one lift, a maximum 2-foot offset between lifts will be permitted to allow for drill equipment clearances. The

Contractor shall begin the control blast hole drilling at a point that will allow for necessary offsets and shall adjust, at the start of lower lifts, to compensate for any drift that may have occurred in the upper lifts.

h) Before placing charges, the Contractor shall determine that the hole is free of obstructions for its entire depth. All necessary precautions shall be exercised so that the placing of the charges will not cause caving of material from the walls of the holes.

i) The maximum diameter of explosives used in presplit holes shall not be greater than $^1/_2$ the diameter of the presplit hole.

j) Only standard explosives manufactured especially for controlled blasting shall be used in controlled blast holes, unless otherwise approved by the Engineer. Bulk ammonium nitrate and fuel oil (ANFO) shall not be allowed to be loaded in the presplit holes.

k) If fractional portions of standard explosive cartridges are used, they shall be firmly affixed to the detonating cord in a manner that the cartridges will not slip down the detonating cord nor bridge across the hole. Spacing of fractional cartridges along the length of the detonating cord shall not exceed 30 inches center to center and shall be adjusted to give the desired results.

l) Continuous column cartridge type of explosives used with detonating cord shall be assembled and affixed to the detonating cord in accordance with the explosive manufacturer's instructions, a copy of which shall be furnished to the Engineer.

m) The bottom charge of a presplit hole may be larger than the line charges but shall not be large enough to cause overbreak. The top charge of the presplitting hole shall be placed far enough below the collar, and reduced sufficiently, to avoid overbreaking and heaving.

n) The upper portion of all presplit holes, from the top most charge to the hole collar, shall be stemmed. Stemming materials shall be sand or other dry angular material, all of which passes a $^3/_8$-inch sieve.

o) If presplitting is specified, the detonation of these holes shall be fired first.

p) If cushion blasting is specified, the detonation of these holes shall be fired last on an instantaneous delay after all other blasting has taken place in the excavation.

q) Production blast holes shall not be drilled closer than 6 feet to the controlled blast line, unless approved by the Engineer. The bottom of the production holes shall not be lower than the bottom of the controlled blast holes. Production holes shall not exceed 6 inches in diameter, unless approved by the Engineer. Detonation of production holes shall be on a delay sequence toward a free face.

r) The use of horizontal blast holes for either production or controlled blasting is prohibited.

SECTION 2-09, STRUCTURE EXCAVATION
April 2, 2007

2-09.3(1)E Backfilling

Paragraphs three through nine including the Controlled Density Fill (CDF) chart are deleted and replaced with the following:

Alternative Sources. When material from structure excavation is unsuitable for use as backfill, the Engineer may:

1. require the Contractor to use other material covered by the contract if such substitution involves work that does not differ materially from what would otherwise have been required;

2. require the Contractor to substitute selected material in accordance with Section 2-03.3(10);

3. require the Contractor to use Controlled Density Fill (CDF) also known as Controlled Low Strength Material (CLSM)), or;

4. require the Contractor to obtain material elsewhere. Material obtained elsewhere will be paid for in accordance with Section 1-04.4.

Controlled Density Fill (CDF) or Controlled Low-Strength Material (CLSM). CDF is a self compacting, cementitious, flowable material requiring no subsequent vibration or tamping to achieve consolidation. The Contractor shall provide a mix design in writing to the Engineer on WSDOT Form 350-040 and utilize ACI 229 as a guide to develop the CDF mix design. No CDF shall be placed until the Engineer has reviewed the mix design. CDF shall be designed to have a minimum 28-day strength of 50 psi and a maximum 28-day strength not to exceed 300 psi. The CDF consistency shall be flowable (approximate slump 3 to 10 inches).

The following testing methods shall be used by the Contractor to develop the CDF mix design:

28 day compressive strength - ASTM D 4832,
Unit weight, yield, and air content – ASTM D 6023,
Test for slump shall be in accordance with WSDOT FOP for AASHTO T 119.

The water/cement ratio shall be calculated on the total weight of cementitious material. The following are considered cementitious materials: Portland cement, fly ash, ground granulated blast furnace slag and microsilica fume.

Admixtures used in CDF shall meet the requirements of Section 9-23.6, Admixtures for Concrete, and foaming agents, if used, shall meet the requirements of ASTM C 869. Admixtures shall be used in accordance with the manufacturer's recommendations and non-chloride accelerating admixtures may be used to accelerate the hardening of CDF.

CDF shall meet the requirements of Section 6-02.3(5)C and shall be accepted based on a Certificate of Compliance. The producer shall provide a Certificate of Compliance for each truckload of CDF in accordance with Section 6-02.3(5)B.

Item 1 of the first paragraph under Compaction is revised to read:

1. Backfill supporting roadbed, roadway embankments, or structures, including backfill providing lateral support for noise barrier wall foundations, luminaire poles, traffic signal standards, and roadside and overhead sign structure foundations — placed in horizontal layers no more than 6 inches thick with each layer compacted to 95 percent of the maximum density determined by the Compaction Control Test, Section 2-03.3(14)D.

2-09.3(3)B Excavation Using Open Pits — Extra Excavation

This section is revised to read:

The Contractor may dig open pits or perform extra excavation without shoring or cofferdams, if:

1. Footings can be placed in dry material away from running water.

2. The integrity of the completed structure and its surroundings is not reduced.

3. Worker safety is ensured as required by law.

4. The excavation does not disturb the existing pavement or any other adjacent structural elements.

If a slide occurs in an open pit, the Contractor shall remove the slide material. If the slide disturbs an area over which a highway will be built, the Contractor shall backfill and compact the site to the original ground line as approved by the Engineer. If the slide damages an existing facility such as a roadway or structure, the Contractor shall repair the damage caused by the slide. The Contractor shall pay all costs related to removing slide material and restoring the slide area, including the repair of any pavement or structural elements damaged by the slide.

The Contractor shall drain or pump any water from the pit, taking care not to stir up or soften the bottom. If equipment in the pit or inadequate water removal makes the foundation material unstable, the Contractor shall, at no expense to the Contracting Agency, remove and replace it with material the Engineer approves.

When the Engineer believes ground water flow may impair a concrete footing, the Contractor shall place under it a layer of gravel at least 6 inches thick. Before placing the gravel, the Contractor shall excavate to whatever grade the Engineer requires. This provision shall not apply to the building of concrete seals.

The Contractor may omit forms when the earthen sides of a footing excavation will stand vertically. In this case, the Contractor may excavate to the neat line dimensions of the footing and pour concrete against the undisturbed earth. If the hole is larger than neat line dimensions, the Contractor shall bear the cost of the extra concrete.

For open temporary cuts, the following requirements shall be met:

1. No vehicular or construction traffic, or construction surcharge loads will be allowed within a distance of 5-feet from the top of the cut.

2. Exposed soil along the slope shall be protected from surface erosion.

3. Construction activities shall be scheduled so that the length of time the temporary cut is left open is reduced to the extent practical.

4. Surface water shall be diverted away from the excavation.

Submittals and Design Requirements. The Contractor shall submit working drawings and calculations showing the geometry and construction sequencing of the proposed excavation slopes. The Contractor shall not begin excavation operations until receiving the Engineer's approval of the excavation submittal.

The excavation stability design shall be conducted in accordance with the WSDOT Geotechnical Design Manual (M46-03). The stability of the excavation slopes shall be designed for site specific conditions which shall be shown and described in the working drawings. Examples of such items that shall be shown on the excavation submittal and supported by calculations include, but are not limited to, the following:

1. Excavation geometry and controlling cross sections showing adjacent existing foundations, utilities, site constraints, and any surcharge loading conditions that could affect the stability of the slope;

2. A summary clearly describing subsurface soil and groundwater conditions, sequencing considerations, and governing assumptions;

3. Any supplemental subsurface explorations made to meet the requirements for geotechnical design of excavation slopes, in accordance with the WSDOT Geotechnical Design Manual;

4. Supporting geotechnical calculations used to design the excavation, the soil and material properties selected for design, and the justification for the selection for those properties, in accordance with the WSDOT Geotechnical Design Manual;

5. Safety factors, or load and resistance factors used, and justification for their selection, in accordance with the WSDOT Geotechnical Design Manual, and referenced AASHTO design manuals;

6. Location and weight of construction equipment adjacent to the excavation top, and location of adjacent traffic; and,

7. A monitoring plan to evaluate the excavation performance throughout its design life.

2-09.3(3)D Shoring and Cofferdams

Paragraphs one through seven are revised to read:

Definitions. Structural shoring is defined as a shoring system that is installed prior to excavation. Structural shoring shall provide lateral support of soils and limit lateral movement of soils supporting structures, roadways, utilities, railroads, etc., such that these items are not damaged as a result of the lateral movement of the supporting soils.

Structural shoring systems includes driven cantilever sheet piles, sheet piles with tiebacks, sheet pile cofferdams with wale rings or struts, prestressed spud piles, cantilever soldier piles with lagging, soldier piles with lagging and tiebacks, and multiple tier tieback systems.

Trench boxes, sliding trench shields, jacked shores, shoring systems that are installed after excavation, and soldier pile, sheet pile, or similar shoring walls installed in front of a pre-excavated slope, are not allowed as structural shoring.

A cofferdam is any watertight enclosure, sealed at the bottom and designed for the dewatering operation, that surrounds the excavated area of a structure. The Contractor shall use steel sheet pile or interlocking steel pile cofferdams in all excavation that is under water or affected by ground water.

Submittals and Design Requirements. The Contractor shall submit working drawings and calculations showing the proposed methods and construction details of structural shoring or cofferdams in accordance with Sections 6-01.9 and 6-02.3(16). The Contractor shall not begin construction of structural shoring or cofferdams, nor begin excavation operations, until approval of the structural shoring submittal has been given by the Project Engineer.

Structural shoring and cofferdams shall be designed for conditions stated in this Section using methods shown in Division I Section 5 of the *AASHTO Standard Specifications for Highway Bridges Seventeenth Edition - 2002* for allowable stress design, or the *AASHTO LRFD Bridge Design Specifications, Third Edition, 2004* and current interims for load and resistance factor design. The USS *Steel Sheet Piling Design Manuals*, published by United States Steel, may be used for shoring walls that do not support other structures and that are 15 feet in height or less. Allowable stresses for materials shall not exceed stresses and conditions allowed by Section 6-02.3(17)B. The shoring design shall also be in compliance with the WSDOT Geotechnical Design Manual (M46-03). In the case of conflict or discrepancy between manuals, the Geotechnical Design Manual shall govern.

For open temporary cuts associated with a shoring system, the requirements for open temporary cuts specified in Section 2-09.3(3)B shall be met.

The structural shoring system shall be designed for site specific conditions which shall be shown and described in the working drawings. The structural shoring system design shall include the design of the slopes for stability above and below the shoring system. Except as otherwise noted, the design height of all structural shoring in design calculations and working drawings shall be for the depth of excavation as required by the Plans, plus an additional 2 feet to account for the possibility of overexcavation. If the Contractor provides written documentation to the satisfaction of the Engineer that the soil conditions at the site are not likely to require overexcavation, the Engineer may waive the requirement for two feet of overexcavation design height.

Examples of such items that shall be shown on the structural shoring submittal and supported by calculations include, but are not limited to, the following:

1. Heights; soil slopes; soil benches; and controlling cross sections showing adjacent existing foundations, utilities, site constraints, and any surcharge loading conditions that could affect the stability of the shoring system, including any slopes above or below the shoring.

2. A summary clearly describing performance objectives, subsurface soil and groundwater conditions, sequencing considerations, and governing assumptions.

3. Any supplemental subsurface explorations made to meet the requirements for geotechnical design of excavation slopes, shoring walls, and other means of ground support, in accordance with the WSDOT Geotechnical Design Manual.

4. Supporting geotechnical calculations used to design the shoring system, including the stability evaluation of the shoring system in its completed form as well as intermediate shoring system construction stages, the soil and material properties selected for design, and the justification for the selection for those properties, in accordance with the WSDOT Geotechnical Design Manual.

5. Safety factors, or load and resistance factors used, and justification for their selection.

6. Location and weight of construction equipment adjacent to the excavation; location of adjacent traffic; and structural shoring system material properties, spacing, size, connection details, weld sizes, and embedment depths.

7. Structural shoring installation and construction sequence, procedure, length of time for procedure and time between operations; proof load testing procedure if any; deadman anchor design and geometry; no load zones; grouting material and strengths; and a list of all assumptions.

8. Methods and materials to be used to fill voids behind lagging, when soldier piles with lagging are used as structural shoring.

9. A monitoring/testing plan to evaluate the performance of the excavation/shoring system throughout its design life, and

10. An estimate of expected displacements or vibrations, threshold limits that would trigger remedial actions, and a list of potential remedial actions should thresholds be exceeded. Thresholds shall be established to prevent damage to adjacent facilities, as well as degradation of the soil properties due to deformation.

SECTION 2-12 CONSTRUCTION GEOTEXTILE
August 7, 2006

The section title is revised to read:

CONSTRUCTION GEOSYNTHETIC

2-12 CONSTRUCTION GEOTEXTILE

This heading is revised to read:

2-12 CONSTRUCTION GEOSYNTHETIC

2-12.1 Description

The word geotextile is revised to geosynthetic.

2-12.2 Materials

In the first and second paragraphs geotextile is revised to geosynthetic.

2-12.3 Construction Requirements

In the first, second, and third paragraphs geotextile is revised to geosynthetic.

SECTION 3-01, PRODUCTION FROM QUARRY AND PIT SITES
August 7, 2006

3-01.4(1) Acquisition and Development

The first paragraph is revised to read:

> If, under the terms of the Contract, the Contractor is required to provide a source of materials, or if the Contractor elects to use materials from sources other than those provided by the Contracting Agency, the Contractor shall, at no expense to the Contracting Agency, make all necessary arrangements for obtaining the material and shall ensure the quantity of suitable material is available. Preliminary samples shall be taken by or in the presence of the Engineer or a designated representative unless the Engineer permits otherwise. Approval of the source does not relieve the Contractor from meeting these specification requirements, nor does it guarantee that the material will meet these requirements without additional or proper processing. The Engineer may require additional preliminary samples at any time.

SECTION 5-01, CEMENT CONCRETE PAVEMENT REHABILITATION
April 2, 2007

5-01.3(2)B Portland Cement Concrete

The third paragraph beginning with "Acceptance testing" is supplemented with the following:

> The Contractor shall provide cure boxes in accordance with Section 6-02.3(5)H, and protect concrete cylinders in cure boxes from excessive vibration and shock waves during the curing period in accordance with Section 6-02.3(6)D. Payment for cure boxes shall be in accordance with Section 6-02.5.

5-01.3(4) Replace Portland Cement Concrete Panel

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

> A vertical full depth saw cut is required along all longitudinal joints and at transverse locations and, unless the Engineer approves otherwise, an additional vertical full depth

relief saw cut located 12 inches to 18 inches from and parallel to the initial longitudinal and transverse saw cut locations is also required.

The third paragraph is revised to read:

When new concrete pavement is to be placed against existing cement concrete pavement, epoxy coated tie bars and epoxy coated dowel bars shall be drilled and grouted into the existing pavement with either Type I or IV epoxy resin as specified in Section 9-26. Tie bars are not required for panel replacement less than a full panel.

The seventeenth paragraph is revised to read:

The Contractor shall place polyethylene film or building paper in accordance with AASHTO M 171 along all existing concrete surfaces and between the bottom of the slab and treated bases prior to placing concrete.

5-01.3(5) Partial Depth Spall Repair

The fifth paragraph is revised to read:

When a partial depth repair is placed directly against an adjacent longitudinal joint, polyethylene film or building paper in accordance with AASHTO M 171 shall be placed between the existing concrete and the area to be patched.

5-01.3(6) Dowel Bar Retrofit

The fourth and fifth sentences in the second paragraph are revised to read:

When gang saws are used, slots that are not used shall be cleaned and sealed with either Type I or IV epoxy resin as specified in Section 9-26.

The sixth paragraph is revised to read:

All slot surfaces shall be cleaned to bare concrete by sand blasting. The cleaning shall remove all slurry, parting compound, and other foreign materials prior to installation of the dowel. Any damage to the concrete shall be repaired by the Contractor at no cost to the Contracting Agency. Traffic shall not be allowed on slots where concrete has been removed.

5-01.3(10) Pavement Smoothness

This section is revised to read:

Perform the work described in Section 5-05.3(12), and the following:

Where the pavement is ground, calculation of the profile index shall exclude dips and depressions in the existing roadway. The profilograph generated reports shall be provided to the Engineer prior to payment.

5-01.5 Payment

This section is revised as follows:

The paragraph following "Replace Cement Concrete Panel", per square yard, is revised to read:

The unit contract price per square yard shall be full payment for all costs to complete the work as specified, including saw cutting full depth, removal and disposal of the existing panels off of the Contracting Agency's right-of-way, preparing the surfacing below the new panel, provide, place and compact the crushed surfacing or hot mix asphalt, furnishing and placing polyethylene film or building paper, furnishing and placing the portland cement concrete, drilling the holes, providing and anchoring the dowel bars and tie bars, and for all incidentals required to complete the work as specified.

In the 15th paragraph for Sealing Transverse and Longitudinal Joints, delete "Cement Concrete Pavement Grinding", per square yard.

At the top of the 16th paragraph add "Cement Concrete Pavement Grinding", per square yard.

The second sentence in the 16th paragraph is revised to read:

The costs of any additional pavement grinding and profiling required to complete the work as specified is also included in this payment.

The 18th paragraph for Replace Uncompactable Material is supplemented with the following:

All costs associated with the containment, collection and disposal of concrete slurry and grinding residue shall be included in the applicable concrete grinding or cutting items of work.

SECTION 5-02, BITUMINOUS SURFACE TREATMENT
August 6, 2007

Section 5-02 is revised in its entirety to read:

5-02.1 Description

This work shall consist of constructing a single or multiple course bituminous surface treatment (BST) in accordance with these Specifications and in conformity with the lines and cross-sections shown in the Plans or as designated by the Engineer.

5-02.1(1) New Construction

This method of treatment requires two applications of asphalt emulsion and three applications of aggregate. The initial application of asphalt emulsion is a prime coat applied to an untreated roadway that is followed with an application of aggregate. The second application of asphalt emulsion is the tack coat and is followed with two additional applications of aggregate.

5-*02.1*(2) Seal Coats

This method require the placing of one application of asphalt emulsion and one or more sizes of aggregate as specified to an existing pavement to seal and rejuvenate the surface and to produce a uniform roadway surface with acceptable nonskid characteristics.

5-02.1(3) Pavement Sealers – Fog Seal

This method of treatment requires an application of asphalt emulsion over an existing or newly constructed pavement as specified.

5-02.2 Materials

Materials shall meet the requirements of the following sections:

Cationic Emulsified Asphalt	9-02.1(6)
Aggregates for Bituminous Surface Treatment	9-03.4

Aggregate to be used for bituminous surface treatment shall be of the type and size called for in the Plans or in the proposal.

The asphalt emulsion to be used shall be the product which is called for in the Special Provisions, the proposal, or shown in the Plans, and may be conditionally accepted at the source.

5-02.3 Construction Requirements

5-02.3(1) Equipment

The equipment used by the Contractor shall be subject to approval by the Engineer before its use.

The distributor shall be capable of uniformly applying asphalt emulsion at the required application temperature and rate. Temperature measuring devices shall be capable of reporting the temperature of asphalt emulsion in the tank and also the temperature of the asphalt emulsion being applied to the roadway. A tachometer shall be required to accurately control the application of asphalt emulsion. Distributors shall be equipped with an adjustable spray bar with pressure pump and gauge. The power for operating the pressure pump shall be supplied by a power unit which will provide a uniform spray from each of the nozzles across the spray bar and extensions. The distributor truck shall have a volume control gauge. All reading devices and gauges shall be easily accessible by Inspectors from the ground.

Rollers for seal coats shall be self-propelled pneumatic tired rollers. Rollers for new construction shall be a combination of self-propelled pneumatic tired rollers and smooth-wheeled rollers. Each roller shall not weigh less than 12 tons and shall be capable of providing constant contact pressure. Operation of the roller shall be in accordance with the manufacturer's recommendations.

Aggregate spreading equipment shall be self-propelled, supported on at least four pneumatic tires, with an approved device for accurately metering and distributing the aggregate uniformly over the roadway surface. Spreading equipment shall be so equipped that the operator has positive width control. This control shall allow the operator to adjust the spreading width of aggregates in 6 inch increments without stopping the machine.

Brooms shall be motorized and capable of controlling vertical pressure.

Other equipment necessary to satisfactorily perform the work as specified herein or as designated by the Engineer shall be subject to approval by the Engineer before its use on the work.

Additional units shall be placed on the work when, in the opinion of the Engineer, it is considered necessary in order to fulfill the requirements of these Specifications, or to complete the work within the time specified.

5-02.3(2) Preparation of Roadway Surface

5-02.3(2)A New Construction

The existing roadway surface shall be shaped to a uniform grade and cross-section as shown in the Plans, or as designated by the Project Engineer.

The roadway shall be dampened, bladed and rolled until the entire roadway surface shows a uniform grading and conforms to the line, grade, and cross-section shown in the Plans, or as staked. During the operation of blading and rolling, water shall be applied, if necessary, in the amount and at the locations designated by the Project Engineer.

The entire surface shall be rolled with a smooth-wheeled or pneumatic-tired roller, or both, as designated by the Engineer, except that the final rolling shall be accomplished with a smooth-wheeled roller as specified in Section 5-02.3(1). Rolling shall continue until the entire roadway presents a firm, damp and unyielding surface.

Immediately before the prime coat of asphalt emulsion is applied, the roadway surface shall be in the following condition: firm and unyielding, damp, free from irregularities and material segregation, and true to line, grade, and cross-section.

No traffic will be allowed on the prepared surface until the prime coat of asphalt emulsion and aggregate is applied.

5-02.3(2)B Seal Coats

The existing bituminous surface shall be swept with a power broom until it is free from dirt or other foreign matter. Hand push brooms shall be used to clean omissions of the power broom. In addition to power and hand brooms, the use of other equipment may be necessary to thoroughly clean the roadway prior to the application of asphalt emulsion. Berms created by the removal of dirt or other foreign matter shall be evenly distributed over the fore slope.

Repair of existing pavement shall be done in accordance with Section 5-04. The HMA in repaired areas shall be fog sealed. HMA repaired areas may require a second fog seal depending on surface texture as required by the Project Engineer. The pavement surface shall be dry prior to fog sealing.

5-02.3(2)C Pavement Sealing – Fog Seal

Where shown in the Plans or directed by the Engineer, the Contractor shall apply a fog seal. Before application of the fog seal, all surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. The existing pavement surface shall be dry.

5-02.3(2)D Soil Residual Herbicide

Where shown in the Plans, soil residual herbicide shall be applied in accordance with Section 5-04. Application of the BST shall begin within 24 hours after application of the herbicide.

5-02.3(3) Application of Asphalt Emulsion and Aggregate

Upon the properly prepared roadway surface, asphalt emulsion of the grade specified in the Special Provisions shall be uniformly applied with distributors and specified aggregates spread at the following rates:

Application Rate			
	Undiluted Asphalt Emulsion (gal. per sq. yd.) Applied	**Aggregate Size (In.)**	**Aggregates (lbs. per sq. yd.) Applied**
New Construction			
Prime Coat	0.35-0.65	1/2-U.S. No. 4 or 3/4-1/2	25-45
Tack Coat Choke Stone	0.35-0.60	1/2-U.S. No. 4 U.S. No. 4-0	25-40 4-6
Seal Coats			
5/8 inch	0.40-0.65	5/8-U.S. No. 4 U.S. No. 4-0	25-45 4-6
1/2 inch Choke Stone	0.35-0.55	1/2-U.S. No. 4 U.S. No. 4-0	20-35 4-6
3/8 inch – No. 4	0.35-.55	3/8- U.S. No. 4	20-30
3/8 inch No. 10	0.20-0.40	3/8- U.S. No. 10	18-30
Pavement Sealing			
Fog Seal	0.02-0.05	N/A	N/A

The Project Engineer will determine the application rates. The second application of asphalt emulsion (tack coat) may be applied the next day, or as approved by the Project Engineer.

Longitudinal joints will be allowed at only the centerline of the roadway, the center of the driving lanes, or the edge of the driving lanes.

To ensure uniform distribution of asphalt emulsion and that the distributor is correctly calibrated, the Contractor shall provide a minimum 1,000 foot test strip when beginning a BST section.

To avoid gaps and ridges at transverse junctions of separate applications of asphalt emulsion and aggregate, the Contractor shall spread sufficient building paper over the treated surface to ensure that the distributor will be functioning normally when the untreated surface is reached. If ordered by the Project Engineer, the joints shall be cut back to a neat edge prior to placing the building paper.

Should ridges, overlaps, or gaps occur at transverse joints, the Contractor shall repair the defects to the satisfaction of the Project Engineer. In lieu of repair the

Engineer may elect to accept the completed joints and will deduct from monies due or that may become due the Contractor, the sum of $200 for each joint where the deviations described above are found. Should longitudinal joints occur outside the centerline of the roadway, the center of the driving lanes, or the edge of the driving lanes, the Contractor shall repair the defects to the satisfaction of the Project Engineer.

All costs involved in making the corrections to defects described above shall be borne by the Contractor and no payment will be made for this work.

Omissions (skips) by the distributor or tire marks on the uncovered asphalt emulsion shall be immediately covered by hand patching with the same grade of asphalt emulsion and aggregate used on the project.

The area covered by any one spread of asphalt emulsion shall be no more than can be covered with aggregate within one minute from the time of application upon any part of the spread. If field conditions warrant, this time may be increased as designated by the Project Engineer.

Unless otherwise designated by the Project Engineer, asphalt emulsion shall be spread toward the source of aggregate to avoid injury to the freshly treated surface.

Before application to the roadway, asphalt emulsion shall be heated to the temperature determined by the Project Engineer, but within the following limits:

Type and Grade of Asphalt Emulsion	Distributor Spraying Min. °F or as recommended by the Manufacturer	Temperature Max. °F
New Construction and Seal Coats:		
CRS-1, CRS-2, CRS-2P, CMS-2	125	205
CMS-2S, CMS-2h	125	185
Fog Seal:		
CSS-1, CSS-1h, STE-1	70	140

Fog seals shall be uniformly applied to the pavement. The finished application shall be free of streaks and bare spots. CSS-1 and CSS-1h emulsified asphalt may be diluted at a rate of one part water to one part emulsified asphalt unless otherwise directed by the Project Engineer.

Fog sealing shall be applied no sooner than 3 days, but no later than 14 days after new construction or seal coat. If required, newly placed aggregates shall be swept prior to the fog seal application. Rebrooming for fog seal applications shall be paid under "Additional Brooming", per hour as specified in Section 5-02.5.

5-02.3(4) Change in Grades of Asphalt Emulsion

At any time during the progress of the work, the Project Engineer may order the use of other grades of asphalt emulsion in substitution of the grades specified in the Special Provisions if the intent of the specifications will be better attained.

If the invoice price of the grade substituted is higher or lower than that of the grade specified, the difference will be paid by the item Asphalt Emulsion Price Adjustment added to the unit contract price for asphalt emulsion, or if lower, it will be deducted from the unit contract price.

5-02.3(5) Application of Aggregates

All aggregate stockpiles shall be watered down to provide aggregates that are uniformly damp at the time of placement on the roadway.

After the asphalt emulsion has been spread evenly over the roadway surface, aggregates of the type specified shall be evenly applied to the roadway surface by spreader equipment.

The aggregate shall be spread in one operation in such a manner that an 8-inch strip of asphalt emulsion is left exposed along the longitudinal joint to form a lap for the succeeding applications of asphalt emulsion. If necessary, thin or bare spots in the spread of aggregate shall be corrected immediately by re-spreading with the chip spreader or by hand spreading the aggregate.

A minimum of three pneumatic tired rollers providing a minimum of two complete coverages to the roadway immediately behind the spreading equipment for the coarse aggregate shall be required.

The maximum rate of roller travel shall be limited to 8 mph.

The Contractor shall apply choke aggregates to the roadway with additional spreading equipment immediately following the initial rolling of the coarse aggregate unless otherwise specified in the contract documents or ordered by the Project Engineer. Excess aggregate shall be removed from the roadway. A minimum of one pass with a pneumatic roller shall be made across the entire width of the applied choke aggregate.

The operation of trucks hauling aggregate from the stockpile shall be so regulated that no damage, as determined by the Project Engineer, will result to the highway or the freshly applied asphalt surface.

The completed surface shall be allowed to cure and then broomed as soon as practical.

If brooming causes rock to be turned or if the Project Engineer determines that additional cure is needed, the Contractor shall broom the roadway when directed by the Project Engineer. If, after completion of the initial brooming, the Project Engineer determines the need to remobilize for additional brooming, the Contractor shall rebroom the areas designated by the Project Engineer. The Contractor shall apply water for dust control during brooming operations when safety or environmental concerns arise, or as otherwise determined by the Project Engineer.

The Contractor shall be held responsible for protecting all surface waters, riparian habitats, or other sensitive areas that may be encroached upon by brooming operations. Materials such as dirt, foreign material, or aggregates removed from these areas shall become the property of the Contractor and shall be disposed of in accordance with Section 2-03.3(7).

The Contractor shall use a pickup broom in all curbed areas, on all bridges, within city limits, within environmentally sensitive areas, and where shown in the Plans both before the application of asphalt emulsion and during the final brooming operation. When the pickup broom does not satisfactorily pickup the aggregate, manual methods shall be used. Materials collected by the pickup broom shall become the property of the Contractor and shall be disposed of in accordance with Section 2-03.3(7).

Aggregates accumulated in intersections and driveways due to brooming operations shall become the property of the Contractor and shall be disposed of in accordance with Section 2-03.3(7).

The Contractor shall notify the Project Engineer when the brooming for each section is considered complete. The Project Engineer will indicate acceptance or inform the Contractor of deficiencies within 24 hours of notification.

5-02.3(6) Additional Asphalt Emulsion and Aggregate

If the application of asphalt emulsion or aggregate, or both, is insufficient or excessive for the required results, the Project Engineer may require the Contractor to make an additional application of one or both materials in accordance with these Specifications, or at the direction of the Project Engineer. Additional asphalt emulsion or aggregate used will be paid for at the unit contract prices for the materials used.

5-02.3(7) Patching and Correction of Defects

Omissions by the distributor or damage to the treated surface of any coat shall be immediately covered by hand patching with asphalt emulsion in adequate quantities. Holes which develop in the surface shall be patched in the same manner as specified in Section 5-02.3(2)A. All costs incurred by the Contractor, in coating omissions and patching, shall be included in the unit contract prices for the materials used.

Defects such as raveling, lack of uniformity, or other imperfections caused by faulty workmanship shall be corrected and new work shall not be started until such defects have been remedied.

All improper workmanship and defective materials resulting from overheating, improper handling or application, shall be removed from the roadway by the Contractor and be replaced with approved materials and workmanship at no expense to the Contracting Agency.

If the Engineer determines a fog seal is necessary at any time during the life of the contract, the Contractor shall apply a fog seal. The CSS-1 or CSS-1h emulsified asphalt may be diluted with water at a rate of one part water to one part emulsified asphalt unless otherwise directed by the Project Engineer.

5-02.3(8) Progress of Work

The Contractor shall organize the work so that no longitudinal joints shall remain open overnight.

5-02.3(9) Protection of Structures

The Contractor shall be responsible for protecting monument covers, sewer lids, manhole covers, water valve covers, drainage grates, inlets, railroad tracks, bridge handrails and expansion joints, guardrails, curbs, road signs, guide posts or other facilities from the application of asphalt emulsion and aggregates. This protective effort is to include uncovering these items the same working day that the completed BST or seal coat construction has passed the protected locations. If needed, drainage inlets shall be cleaned out immediately after final brooming is completed. All costs incurred by the Contractor in necessary protective measures shall be included in the unit contract prices for the various bid items of work involved.

5-02.3(10) Unfavorable Weather

Asphalt emulsion shall not be applied to a wet roadway. Subject to the determination of the Project Engineer, asphalt emulsion shall not be applied during rainfall, sand or dust storms, or before any imminent storms that might damage the construction. The Project Engineer will have the discretion as to whether the surface and materials are dry enough to proceed with construction.

The application of any asphalt emulsion to the roadway shall be restricted to the following conditions:

1. The roadway surface temperature shall be at least 55°F. The air temperature shall be at least 60°F and rising. The air temperature shall be not less than 70°F when falling and the wind shall be less than 10 miles per hour as estimated by the Project Engineer.

2. The surface temperature shall be not more than 140°F.

3. No asphalt emulsion shall be applied which cannot be covered one hour before darkness. The Project Engineer may require the Contractor to delay application of asphalt emulsion until the atmospheric and roadway conditions are satisfactory.

4. Construction of bituminous surface treatments on any traveled way shall not be carried out before May 1 or after August 31 of any year except upon written order of the Project Engineer.

5-02.3(11) Temporary Raised Pavement Markings

During bituminous surface treatment paving operations, temporary raised pavement markings shall be maintained throughout the project. Temporary raised pavement markings shall be installed on the roadway that was paved that day. Temporary raised pavement markings shall be in accordance with Section 8-23.

5-02.4 Measurement

Processing and Finishing will be measured by the mile to the nearest 0.01 mile along the main line roadway. All related supplemental roadways and irregular shaped areas will be incidental.

Asphalt Emulsion of the grade or grades specified will be measured by the ton in accordance with Section 1-09.

Asphalt for Fog Seal will be measured by the ton, before dilution, in accordance with Section 1-09.

Aggregate from Stockpile for BST will be measured by the cubic yard in trucks at the point of delivery on the roadway.

Furnishing and Placing Crushed Aggregate will be measured by the cubic yard in trucks at the point of delivery on the roadway, or by the ton in accordance with Section 1-09.1.

Additional brooming will be measured by the hour.

Water will be measured in accordance with Section 2-07.

No specific unit of measure will apply to the calculated item of Asphalt Emulsion Price Adjustment.

5-02.5 Payment

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

"Processing and Finishing", per mile.
The unit contract price per mile for "Processing and Finishing" shall be full pay for all labor and equipment required for blading, scarifying, processing, leveling, finishing, and the manipulation of aggregates as required. In the event the proposal does not include a bid item for "Processing and Finishing" then all costs for processing and finishing shall be included in other related items of work.

"Asphalt Emulsion (_____)", per ton.
The unit contract price per ton for "Asphalt Emulsion (_____) shall be full pay for furnishing the asphalt emulsion and for all labor and equipment for heating, hauling, and spreading on the roadway.

"Asphalt for Fog Seal", per ton.
The unit contract price per ton for "Asphalt for Fog Seal" shall be full pay for all costs of material, labor, tools and equipment necessary for the application of the fog seal as specified.

"Agg. from Stockpile for BST", per cubic yard.
The unit contract price per cubic yard for "Aggregate from Stockpile for BST" shall be full pay for all labor and equipment required for loading, transporting, and placing the material in the finished work.

"Furnishing and Placing Crushed (_____)", per cubic yard.
"Furnishing and Placing Crushed (_____)", per ton.
The unit contract price per cubic yard or per ton for "Furnishing and Placing Crushed (_____) shall be full pay for all labor and equipment required for furnishing, transporting and placing the material in the finished work.

"Additional Brooming", per hour.

The unit contract price per hour for "Additional Brooming" shall be full pay for all labor and equipment necessary to rebroom the roadway as specified.

"Water", per M gal.
Payment for "Water" shall be in accordance with Section 2-07.5.

"Asphalt Emulsion Price Adjustment", by calculation
"Asphalt Emulsion Price Adjustment" will be calculated and paid for as described in Section 5-02.3(4).
If the proposal does not include a bid item for water, the Contractor shall dampen stockpiled or furnished aggregate as required, and the cost thereof shall be included in other related items of the work.

Any incidental work required to complete the bituminous surface treatment that is not specifically mentioned as included with the bid items above shall be performed by the Contractor and shall be included in the unit contract prices of the various related bid items.

SECTION 5-04, HOT MIX ASPHALT
April 2, 2007

5-04.3(1) HMA Mixing Plant
The first paragraph is supplemented with the following:

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

    a. A mechanical sampling device attached to the HMA plant.
    b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(8)A Acceptance Sampling and Testing—HMA Mixture
Item 3 in this section is revised to read:

3. **Sampling.** Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with WSDOT FOP for WAQTC/AASHTO T 168.

5-04.3(10)B Control
The second paragraph in item 3. is revised to read:

For compaction lots falling below a 1.00 pay factor and thus subject to price reduction or rejection, the Contractor may request that cores be used for acceptance of HMA compaction. When cores are taken by the Contracting Agency at the request of the Contractor, they shall be requested by noon of the next workday after receiving the test results. The cores will be taken at approximately the same locations as the nuclear density gauge tests in the compaction lot being challenged. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the cost for the coring will be deducted from any monies due or that may become due the Contractor under the contract at the rate of $125 per core.

SECTION 5-05, CEMENT CONCRETE PAVEMENT
August 6, 2007

5-05.3(4)A Acceptance of Portland Cement Concrete Pavement

The ninth paragraph beginning with "Acceptance testing for compliance" is supplemented with the following:

The Contractor shall provide cure boxes in accordance with Section 6-02.3(5)H, and protect concrete cylinders in cure boxes from excessive vibration and shock waves during the curing period in accordance with Section 6-02.3(6)D. Payment for cure boxes shall be in accordance with Section 6-02.5.

5-05.3(6) Subgrade

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

The subgrade shall be prepared and compacted a minimum of 3 feet beyond each edge of the area which is to receive concrete pavement in order to accommodate the slip-form equipment.

5-05.3(7) Placing, Spreading, and Compacting Concrete

The second paragraph is revised to read:

The average density of the cores shall be at least 97 percent of the approved mix design density or the actual concrete density when determined by the Contractor using AASHTO T 121 with no cores having a density of less than 96 percent.

5-05.3(7)B Stationary Side Form Construction

The first paragraph is revised to read:

Side form sections shall be straight, free from warps, bends, indentations, or other defects. Defective forms shall be removed from the work. Metal side forms shall be used unless other forms are approved by the Project Engineer.

The third paragraph is deleted.

The fifth paragraph is revised to read:

Before placing side forms, the underlying material shall be at the proper grade. Side forms shall be placed to the required grade and alignment of the edge of the finished pavement. Wood wedges may be used to adjust the form elevation provided they do not extend into the concrete. The forms shall be firmly supported during the entire operation of placing, compacting, and finishing the pavement.

5-05.3(8)A Contraction Joints

The fifth paragraph is revised to read:

When cement concrete pavement is placed adjacent to existing cement concrete pavement, the vertical face of all existing working joints shall be covered with polyethylene film or building paper in accordance with AASHTO M 171.

5-05.3(10) Tie Bars and Dowel Bars

The first and second sentences in the seventh paragraph are revised to read:

When fresh concrete pavement is to be placed against pre-project existing cement concrete pavement, epoxy-coated tie bars shall be drilled and set into the existing pavement with an epoxy bonding agent in accordance with the Standard Plan and specified tolerances for placement of tie bars. The epoxy-bonding agent shall be either Type I or IV epoxy resin as specified in Section 9-26.

5-05.3(12) Surface Smoothness

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

The pavement smoothness will be checked with equipment furnished and operated by the Contractor, under supervision of the Engineer, within 48 hours following placement of concrete.

5-05.3(19) Reinforced Concrete Bridge Approach Slabs

This section including title is revised to read:

5-05.3(19) Vacant

5-05.4 Measurement

Item 3. is revised to read:

3. The depth will be determined from the reference cores. The depth utilized to calculate the volume shall not exceed the plan depth plus 0.04 feet.

The measurement statement for Epoxy Coated Tie Bar With Drill Holes revised to read:

Epoxy-coated tie bar with drill hole will be measured per each for the actual number of bars used in the completed work.

The statement "Bridge approach slab will be measured by the square yard." is deleted.

This section is supplemented with the following:

Epoxy coated dowel bar will be measured per each for the actual number of bars used in the completed work.

5-05.5 Payment

The paragraph following “Cement Conc. Pavement”, is revised to read:

The unit contract price per cubic yard for “Cement Conc. Pavement” shall include saw cutting and sealing joints, furnishing and installing tie bars, except those tie bars drilled into cement concrete pavement will be paid under the item “Epoxy-Coated Tie Bar with Drill Hole”.

The new bid item and new paragraph listed below are inserted to follow "Cement Conc. Pavement".

“Epoxy Coated Dowel Bar”, per each,

The unit contract price per each for "Epoxy Coated Dowel Bar" shall be full payment for furnishing, and installing epoxy coated dowel bars and any costs for drilling holes, placing dowel bars with baskets, furnishing and installing parting compound and all other costs associated with completing the installation of epoxy coated dowel bars.

The bid item "Cement Conc. Pavement Including Dowels" and the paragraph following are deleted.

The following new paragraph is inserted to follow "Epoxy-Coated Tie Bar with Drill Hole":

The unit contract price per each, "Epoxy-Coated Tie Bar with Drill Hole" shall be full payment for furnishing, and installing epoxy coated tie bars and any costs for drilling holes, and all other costs associated with installation of epoxy coated tie bars.

The bid item "Bridge Approach Slab" and the paragraph following are deleted.

5-05.5(1) Pavement Thickness

The fourth paragraph is revised to read:

Additional cores may be requested by the Contractor to isolate the area that has a thickness deficiency within the 0.05 feet of the design thickness. These cores will be used to create a secondary unit. All costs for the additional cores including grouting the core holes will be the responsibility of the Contractor.

5-05.5(1)A Thickness Deficiency of 0.05 Foot or Less

The first paragraph is revised to read:

If no thickness measurements in a primary unit are deficient by more than 0.05 foot, all thickness measurements in such unit will be averaged to the nearest 0.01 foot to determine the average thickness deficiency, if any, in that primary unit. For the purpose of determining the average thickness deficiency, an excess thickness variation of more than 0.04 foot will be considered to be 0.04 foot greater than the specified thickness.

SECTION 6-02, CONCRETE STRUCTURES
August 6, 2007

6-02.1 Description

The first sentence is revised to read:

This work consists of the construction of all structures (and their parts) made of Portland cement concrete with or without reinforcement, including bridge approach slabs.

6-02.3(1) Classification of Structural Concrete

The first paragraph is revised to read:

The class of concrete to be used shall be as noted in the Plans and these Specifications. The numerical class of concrete defines the specified minimum compressive strength at 28 days in accordance with the WSDOT FOP for AASHTO T 22. The letter designation following the class of concrete identifies the specific use; P for Piling applications, W for Underwater applications, D for Deck applications, and A for Bridge Approach Slab applications.

6-02.3(2) Proportioning Materials

The third paragraph is revised to read:

The use of fly ash is required for Class 4000D and 4000P concrete, except that ground granulated blast furnace slag may be substituted for fly ash at a 1:1 ratio. The use of fly ash and ground granulated blast furnace slag is optional for all other classes of concrete.

6-02.3(2)A Contractor Mix Design

The first paragraph is revised to read:

The Contractor shall provide a mix design in writing to the Engineer for all classes of concrete specified in the Plans except for those accepted based on a Certificate of Compliance. No concrete shall be placed until the Engineer has reviewed the mix design. The required average 28 day compressive strength shall be selected per ACI 318, Chapter 5, Section 5.3.2. ACI 211.1 and ACI 318 shall be used to determine proportions. The proposed mix for Class 4000P shall provide a minimum fly ash or ground granulated blast furnace slag content per cubic yard of 100 pounds, and a minimum cement content per cubic yard of 600 pounds. The proposed mix for Class 4000D shall provide a minimum fly ash or ground granulated blast furnace slag content per cubic yard of 75 pounds, and a minimum cement content per cubic yard of 660 pounds. All other concrete mix designs, except those for lean concrete and commercial concrete, shall have a minimum cementitious material content of 564 pounds per cubic yard of concrete.

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

The Contractor's submittal of a mix design shall be on WSDOT form 350-040 and shall provide a unique identification for each mix design and shall include the mix proportions per cubic yard, the proposed sources, the average 28 day compressive strength for which the mix is designed, the fineness modulus, and the water cement ratio.

The fourth paragraph is revised to read:

Coarse aggregate shall conform to Section 9-03. An alternate combined aggregate gradation conforming to Section 9-03.1(5) may also be used. The nominal maximum size aggregate for Class 4000P shall be $^1/_2$-inch. The nominal maximum size aggregate for Class 4000D shall be $^3/_4$-inch. The nominal maximum size aggregate for Class 4000A shall be 1-inch.

6-02.3(4)A Qualification of Concrete Suppliers

The first paragraph and the entire second paragraph (1 through 4) are deleted and replaced with the following:

Batch Plant Prequalification may be obtained through one of the following methods:

1. Certification by the National Ready Mix Concrete Association (NRMCA). Information concerning NRMCA certification may be obtained from the NRMCA at 900 Spring Street, Silver Springs, MD 20910 or online at www.nrmca.org. The NRMCA certification shall be good for a two year period. When this method of certification is used the following documentation shall be submitted to the Project Engineer.

a. A copy of the current NRMCA Certificate of Conformance, the concrete mix design(s) (WSDOT Form 350-040), along with copies of the truck list, batch plant scale certification, admixture dispensing certification, and volumetric water batching devices (including water meters) verification.

2. Independent evaluation certified by a Professional Engineer using NRMCA checklist. The Professional Engineer shall be licensed under title 18 RCW, state of Washington, qualified in civil engineering. The independent certification using the NRMCA checklist shall be good for a two year period. When this method of certification is used the following documentation shall be submitted to the Engineer.

   a. A copy of the Professional Engineer's stamped and sealed NRMCA Verification of Inspection and Application for Certificate page from the NRMCA checklist, the concrete mix design(s) (WSDOT Form 350-040), along with copies of the truck list, batch plant scale certification, admixture dispensing certification, and volumetric water batching devices (including water meters) verification.

3. Inspection conducted by the Plant Manager, defined as the person directly responsible for the daily plant operation, using the NRMCA Plant Certification checklist. The Plant Manager certification shall be done prior to the start of a project, and every six months throughout the life of the project, and meet the following requirements:

   a. The Agreement to Regularly Check Scales and Volumetric Batching Dispensers page in the NRMCA Plant Certification checklist shall be signed by the Plant Manager and notarized.

   b. The signed and notarized Agreement to Regularly Check Scales and Volumetric Batching Dispensers page and a copy of the NRMCA Plant Certification checklist cover page showing the plant designation, address and Company operating plant shall all be submitted to the Project Engineer with the concrete mix design (WSDOT Form 350-040), along with copies of the truck list, batch plant scale certification, admixture dispensing certification, and volumetric water batching devices (including water meters) verification.

   c. The NRMCA Plant Certification checklists shall be maintained by the Plant Manager and are subject to review at any time by the Contracting Agency.

   e. Volumetric water batching devices (including water meters) shall be verified every 90 days.

6-02.3(5)B Certification of Compliance

The first paragraph is supplemented with the following:

For concretes that use combined aggregate gradation, the Certificate of Compliance shall include the aggregate components and moisture contents for each size in lieu of the aggregate information described above.

6-02.3(5)C Conformance to Mix Design

Item 2 under the first paragraph is revised to read:

2. Fly ash and ground granulated blast furnace slag weight plus or minus 5 percent of that specified in the mix design.

6-02.3(5)H Sampling and Testing for Compressive Strength

This section including title is revised to read:

6-02.3(5)H Sampling and Testing for Compressive Strength and Initial Curing

Acceptance testing for compressive strength shall be conducted at the same frequency as the acceptance tests for temperature, consistency, and air content.

The Contractor shall provide, and maintain cure boxes for curing concrete cylinders. The Contractor shall also provide, maintain and operate all necessary power sources and connections needed to operate the curing box. Concrete cylinders shall be cured in a cure box in accordance with WSDOT FOP for AASHTO T 23. The cure boxes shall maintain a temperature between 60°F and 80°F for concrete with specified strengths less than 6000 psi and between 68°F and 78°F for concrete with specified strengths of 6000 psi and higher. A minimum/maximum thermometer shall be installed to measure the internal temperature of the cure box. The thermometer shall be readable from outside of the box and be capable of recording the high and low temperatures in a 24-hour period. The cure boxes shall create an environment that prevents moisture loss from the concrete specimens. The top shall have a working lock and the interior shall be rustproof. A moisture-proof seal shall be provided between the lid and the box. The cure box shall be the appropriate size to accommodate the number of concrete acceptance cylinders necessary or the Contractor shall provide additional cure boxes. Once concrete cylinders are placed in the cure box, the cure box shall not be moved until the cylinders have been cured in accordance with these specifications. When concrete is placed at more than one location simultaneously, multiple cure boxes shall be provided.

The Contractor shall protect concrete cylinders in cure boxes from excessive vibration and shock waves during the curing period in accordance with Section 6-02.3(6)D.

6-02.3(6)A Weather and Temperature Limits to Protect Concrete

The first sentence in the third paragraph under Hot Weather Protection is revised to read:

If air temperature exceeds 90°F, the Contractor shall use fog spray or other approved methods to cool all concrete-contact surfaces to less than 90°F.

The first sentence in the fifth paragraph under Hot Weather Protection is revised to read:

If the evaporation rate at the concreting site is 0.10 pounds per square foot of surface per hour or more (determined from Table 6-02.3(6)), the Contractor shall surround the fresh concrete with an enclosure.

The section **Cold Weather Protection** is revised to read:

NOTE: Table 6-02.3(6) "Surface Evaporation from Concrete", remains unchanged.

Cold Weather Protection

This Specification applies when the weather forecast predicts air temperatures below 35° F at any time during the seven days following concrete placement. Weather forecast is based on predictions from the Western Region Headquarters of the National Weather Service. This forecast can be found at http://www.wrh.noaa.gov/.

To achieve adequate curing, the temperature of the concrete shall be maintained above 50° F during the entire curing period or seven days, whichever is greater. The concrete temperature shall not be allowed to fall below 35 ° F during this time. Prior to placing concrete in cold weather, the Contractor shall provide a written procedure for cold weather concreting to the Engineer. The procedure shall detail how the Contractor will adequately cure the concrete and prevent the concrete temperature from falling below 35° F. Extra protection shall be provided for areas especially vulnerable to freezing (such as exposed top surfaces, corners and edges, thin sections, and concrete placed into steel forms). Concrete placement will only be allowed if the Contractor's cold weather protection plan has been approved by the Engineer.

The Contractor shall not mix nor place concrete while the air temperature is below 35° F, unless the water or aggregates (or both) are heated to at least 70° F. The aggregate shall not exceed 150° F. If the water is heated to more than 150° F, it shall be mixed with the aggregates before the cement is added. Any equipment and methods shall heat the materials evenly. Concrete placed in shafts and piles is exempt from such preheating requirements.

The Contractor may warm stockpiled aggregates with dry heat or steam, but not by applying flame directly or under sheet metal. If the aggregates are in bins, steam or water coils or other heating methods may be used if aggregate quality is not affected. Live steam heating is not permitted on or through aggregates in bins. If using dry heat, the Contractor shall increase mixing time enough to permit the super-dry aggregates to absorb moisture.

The Contractor shall provide and maintain a maturity meter sensor, continuously recording time and temperature during the curing period, in the concrete at a location specified by the Engineer for each concrete placement. The Contractor shall also provide recording thermometers or other approved devices to monitor the surface temperature of the concrete. During curing, data from the maturity meter and recording thermometer shall be readily available to the Engineer. The Contractor shall record time and temperature data on hourly intervals. Data shall be provided to the Engineer upon request.

Starting immediately after placement, the concrete temperatures measured by the maturity meter and recording thermometer shall be maintained at or above 50° F and the relative humidity shall be maintained above 80%. These conditions shall be maintained for a minimum of seven days or for the cure period required by Section 6-02.3(11), whichever is longer. During this time, if the temperature falls below 50° F on the maturity meter or recording thermometer, no curing time is awarded for that day. Should the Contractor fail to adequately protect the concrete and the temperature of the concrete falls below 35° F during curing, the Engineer may reject it.

The Contractor is solely responsible for protecting concrete from inclement weather during the entire curing period. Permission given by the Engineer to place concrete during cold weather will in no way ensure acceptance of the work by the Contracting Agency. Should the concrete placed under such conditions prove unsatisfactory in any way, the Engineer shall still have the right to reject the work although the plan and the work were carried out with the Engineer's permission.

6-02.3(6)D Protection Against Vibration

The second and third sentences in the second paragraph are revised to read:

These requirements for the protection of freshly placed concrete against vibration shall not apply for plant cast concrete, shaft installation or soldier pile shaft installation operations, nor shall they apply to the vibrations caused by the traveling public. See the Shaft Special Provision, and Section 6-16 respectively for shaft installation, and soldier pile shaft installation operations.

The first sentence in number 3 under Prescriptive Safe Distance Method is revised to read:

(3) Equipment Class H (High Vibration) shall include pile drivers, machine operated impact tools, pavement breakers, and other large pieces of equipment.

6-02.3(10) Roadway Slabs

The section title is revised to read:

6-02.3(10) Roadway Slabs and Bridge Approach Slabs

The fifth paragraph is revised to read:

For bridge deck and bridge approach slab widening of 20 feet or less, or where jobsite conditions do not allow the use of conventional configuration finishing machines described above, the Contractor may propose the use of a hand operated motorized power screed such as a "texas" or "bunyan" screed. This screed shall be capable of finishing the bridge deck and bridge approach slab to the same standards as the finishing machine. The Contractor shall not begin placing bridge deck or bridge approach slab concrete until receiving the Engineer's approval of this screed and the placing procedures.

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

On roadway slabs the Contractor may use hand-operated strike-boards only when the Engineer approves for special conditions and small areas (less than 10-feet in width and 200-feet in length).

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

Placement of concrete for roadway and bridge approach slabs shall comply with Section 6-02.3(6).

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

The Contractor shall texture the bridge deck and bridge approach slab by combing the final surface perpendicular to the centerline.

The twenty seventh paragraph is revised to read:

The surface texture on any area cut down or built up shall match closely that of the surrounding bridge deck or bridge approach slab area. The entire bridge roadway slab and bridge approach slab shall provide a smooth riding surface.

This section is supplemented with the following:

Bridge approach slabs shall be constructed full bridge deck width from outside usable shoulder to outside usable shoulder at an elevation to match the structure. The bridge approach slabs shall be modified as shown in the Plans to accommodate the grate inlets at the bridge ends if the grate inlets are required.

Bridge approach slab anchors shall be installed as detailed in the Plans and the anchor rods, couplers, and nuts shall conform to Section 9-06.5(1). The steel plates shall conform to ASTM A 36. All metal parts shall receive one coat of formula A-11-99 paint meeting the requirements of Section 9-08.2. The pipe shall be any non-perforated PE or PVC pipe of the diameter specified in the Plans. Polystyrene shall conform to Section 9-04.6. The anchors shall be installed parallel both to profile grade and center line of roadway. The Contractor shall secure the anchors to ensure that they will not be misaligned during concrete placement. For Method B anchors installations, the epoxy bonding agent used to install the anchors shall be Type IV conforming to Section 9-26.1. The compression seal shall be as noted in the contract documents. Dowel bars shall be installed in the bridge approach slabs in accordance with the requirements of the Standard Plans and Section 5-05.3(10).

After curing bridge approach slabs in accordance with Section 6-02.3(11), the bridge approach slabs may be opened to traffic in accordance with Section 5-05.3(17).

6-02.3(11) Curing Concrete

In item 1. under the first paragraph, "box culvert tops" is deleted.

New item 3. is inserted:

3. Bridge approach slabs (Class 4000A concrete) – two coats of curing compound and continuous wet cure using heavy quilted blankets or burlap for 10 days.

Existing item 3. is renumberd to item 4.

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

When curing Class 4000D and 4000A, two coats of curing compound that complies with Section 9-23.2 shall be applied immediately (not to exceed 15 min.) after tining any portion of the bridge deck or bridge approach slab.

The last sentence in the fourth paragraph is revised to read:

If any curing compound spills on construction joints or reinforcing steel, the Contractor shall clean it off before the next concrete placement.

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

If the Plans call for an asphalt overlay, the Contractor shall use the clear curing compound (Type 1D), applying at least 1 gallon per 150 square feet to the concrete surface.

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

The Engineer may require the Contractor to demonstrate (at least one day before the scheduled concrete placement) that the crew and equipment can apply the compound acceptably.

The second paragraph is supplemented with the following:

Runoff water shall be collected and disposed of in accordance with all applicable regulations. In no case shall runoff water be allowed to enter any lakes, streams, or other surface waters.

6-02.3(16) Plans for Falsework and Formwork

The address for FEDEX delivery following the fourth paragraph is revised to read:

Washington State Department of Transportation
Bridge and Structures Engineer
7345 Linderson Way SW
Tumwater, WA 98501-6504

6-02.3(16)A Nonpreapproved Falsework and Formwork Plans

The address for FEDEX delivery following the first paragraph is revised to read:

Washington State Department of Transportation
Bridge and Structures Engineer
7345 Linderson Way SW
Tumwater, WA 98501-6504

6-02.3(16)B Preapproved Formwork Plans

The address for FEDEX delivery following the second paragraph is revised to read:

Washington State Department of Transportation
Bridge and Structures Engineer
7345 Linderson Way SW
Tumwater, WA 98501-6504

6-02.3(17)N Removal of Falsework and Forms

The second through the fifth paragraphs are revised to read:

Concrete Placed In	Percent of Specified Minimum Compressive Strength	Number of Days
Columns, walls, non-sloping box girder webs, abutments, footings, traffic and pedestrian barriers, and any other side form not supporting the concrete weight.	—	3
Crossbeams, pier caps, struts, inclined columns and inclined walls.[1]	80	5

Roadway slabs supported on wood or steel stringers or on steel or prestressed concrete girders.[1, 2]	80	10
Box girders, T-beam girders, and flat-slab superstructure.[1,2]	80	14
Arches.[1,2]	—	21

[1]Where forms support the concrete weight.

[2]Where continuous spans are involved, the time for all spans will be determined by the last concrete placed affecting any span.

Before releasing supports from beneath beams and girders, the Contractor shall remove forms from columns to enable the Engineer to inspect the column concrete.

The Contractor may remove the side forms of footings 24 hours after concrete placement if a curing compound is applied immediately. This compound shall not be applied to that area of the construction joint between the footing and the column or wall.

The Contractor may remove side forms not supporting the concrete weight 24 hours after concrete placement if the concrete reaches a compressive strength of 1400 psi before form removal. This strength shall be proved by test cylinders made from the last concrete placed into the form. The cylinders shall be cured according to WSDOT FOP for AASHTO T 23.

6-02.3(24)C Placing and Fastening

The 14th paragraph is revised to read

:

Clearances shall be at least:

4-inches between:	Main bars and the top of any concrete masonry exposed to the action of salt or alkaline water.
3-inches between:	Main bars and the top of any concrete deposited against earth without intervening forms.
$2^1/_2$-inches between:	Adjacent bars in a layer. Roadway slab bars and the top of the roadway slab.
2-inches between:	Adjacent layers. Main bars and the surface of concrete exposed to earth or weather (except in roadway slabs). Reinforcing bars and the faces of forms for exposed aggregate finish.
$1^1/_2$-inches between:	Main bars and the surface of concrete not exposed to earth or weather. Slab bars and the top of the slab (except roadway slabs). Barrier and curb bars and the surface of the concrete. Stirrups and ties and the surface of the concrete exposed to earth or weather.

1-inch between:	Slab bars and the bottom of the slab. Stirrups and ties and the surface of the concrete not exposed to earth or weather.

6-02.3(24)E Welding Reinforcing Steel

This section is revised to read:

Welding of steel reinforcing bars shall conform to the requirements of ANSI/AWS D1.4 Structural Welding Code - Reinforcing Steel, latest edition, except where superseded by the Special Provisions, Plans, and these Specifications.

Before any welding begins, the Contractor shall obtain the Engineer's approval of a written welding procedure for each type of welded splice to be used, including the weld procedure specifications and joint details. The weld procedure specifications shall be written on a form taken from AWS D1.4 Annex A, or equivalent. Test results of tensile strength, macroetch, and visual examination shall be included. The form shall be signed and dated.

Welders shall be qualified in accordance with AWS D1.4. The Contractor shall be responsible for the testing and qualification of welders, and shall submit welder qualification and retention records to the Engineer for approval. The weld joint and welding position a welder is qualified in shall be in accordance with AWS D1.4. The welder qualifications shall remain in effect indefinitely unless, (1) the welder is not engaged in a given process of welding for which the welder is qualified for a period exceeding six months, or (2) there is some specific reason to question a welder's ability.

Filler metals used for welding reinforcing bars shall be in accordance with AWS D1.4 Table 5.1. All filler metals shall be low-hydrogen and handled in compliance with low-hydrogen practices specified in the AWS code.

All welding shall be protected from air currents, drafts, and precipitation to prevent loss of heat or loss of arc shielding. Short circuiting transfer with gas metal arc welding will not be allowed. Slugging of welds will not be allowed.

The minimum preheat and interpass temperature for welding shall be in accordance with AWS D1.4 Table 5.2 and mill certification of carbon equivalence, per lot of reinforcing. Preheating shall be applied to the reinforcing bars and other splice members within 6-inches of the weld, unless limited by the available lengths of the bars or splice member.

Generally, post heating of welded splices is only required for direct butt welded splices of AASHTO M 31/ASTM A 615 Grade 60 bars size No. 9 or larger and shall be done immediately after welding before the splice has cooled to 700°F. Post heating shall not be less than 800°F nor more than 1,000°F and held at this temperature for not less than 10 minutes before allowing the splice to cool naturally to ambient temperature.

For the purpose of compatibility with AWS D1.4, welded lap splices for spiral or hoop reinforcing shall be considered Flare-V groove welds, indirect butt joints.

The Contractor is responsible for using a welding sequence that will limit the alignment distortion of the bars due to the effects of welding. The maximum out-of-line permitted

will be $^1/_4$-inch from a 3.5-foot straight-edge centered on the weld and in line with the bar.

The following procedure for welding steel reinforcing bars is recommended:

Sheared bar ends shall be burned or sawed off a minimum of $^1/_2$-inch to completely remove the ruptured portion of the steel shear area prior to welding butt splices. Surfaces to be welded shall be smooth, uniform, and free from fins, tears, cracks, and other defects. Surfaces to be welded and surfaces adjacent to a weld shall also be free from loose or thick scale, slag, rust, moisture, grease, paint, epoxy covering, or other foreign materials. All tack welds shall be within the area of the final weld. No other tack weld will be permitted. Double bevel groove welds require chipping, grinding, or gouging to sound metal at the root of the weld before welding the other side. Progression of vertical welding shall be upward. The ground wire from the welding machine shall be clamped to the bar being welded.

Should the Contractor elect to use a procedure which differs in any way from the procedure recommended, the Contractor shall submit the changes, in writing, to the Engineer for approval. Approved weld procedures shall be strictly followed.

6-02.3(25) Prestressed Concrete Girders

In the second sentence of the first paragraph, the word "Prestress" is revised to "Prestressed".

In the first sentence under **Prestressed Concrete Girder,** "precast prestressed concrete members" is revised to "precast prestressed members".

In the first sentence under **Prestressed Concrete Wide Flange I Girder**, "W83G" and "W95G" are revised to "WF83G" and "WF95G".

In the last sentence under **Spliced Prestressed Concrete Girder**, "W83PTG" and "W95PTG" are revised to "WF83PTG" and "WF95PTG".

6-02.3(25)A Shop Plans

This section including title is revised to read:

6-02.3(25)A Shop Drawings

The Plans show design conditions and details for prestressed girders. Deviations will not be permitted, except as specifically allowed by these Specifications, the shop drawings as approved by the Engineer, and by manufacturing processes approved by the annual plant approval process.

Shop drawings shall show the size and location of all cast-in holes for installation of deck formwork hangers and/or temporary bracing. Holes for formwork hangers shall match approved deck formwork plans designed in accordance with Section 6-02.3(16). There shall be no field-drilled holes in prestressed concrete girders. Post-tensioning ducts in spliced prestressed concrete girders shall be located so their center of gravity is in accordance with the Plans.

The Contractor may alter prestressed concrete girder dimensions from that shown in the Plans provided:

1. The girder has the same or higher load carrying capacity (using the current AASHTO LRFD Design Specifications and WSDOT Bridge Design Manual LRFD) as demonstrated by design calculations submitted to the Engineer for approval in accordance with Section 6-01.9, and accompanying the shop drawing submittal;

2. The Contractor receives the Engineer's approval of the shop drawing and design calculation submittal for the modified girder section prior to beginning fabrication of the girder;

3. The Contractor adjusts substructures to yield the same top of roadway elevation shown in the Plans; and

4. The depth of the girder is not increased by more than 2-inches and is not decreased, except that in no case shall an increase in the girder depth reduce the minimum vertical clearance of the bridge and girder over a traveled way to less than 16'-6", or to less than the minimum vertical clearance specified in the Plans if the Plans already specify a minimum vertical clearance of less than 16'-6".

The Contractor shall provide five copies of the shop drawings to the Engineer for approval, except as otherwise noted. Shop drawings for spliced prestressed concrete girders shall conform to Section 6-02.3(26)A, and seven copies of the shop drawings shall be submitted to the Engineer for approval. The shop drawings for spliced prestressed concrete girders shall include all details related to the post-tensioning operations in the field, including details of hardware required, tendon geometry, blockout details, and details of additional or modified steel reinforcing bars required in cast-in-place closures. Approval of shop drawings means only that the Engineer accepts the methods and materials, and nature and scope of the details. Approval shall neither confer upon the Contracting Agency nor relieve the Contractor of responsibility for the accuracy of the shop drawing details and their geometric dimensions, or conformity of the shop drawing details with the contract.

6-02.3(25)B Casting

The first paragraph is revised to read:

Before casting girders, the Contractor shall have possession of an approved set of shop drawings. Side forms shall be steel except that cast-in-place concrete closure forms for spliced prestressed concrete girders, interior forms of prestressed concrete tub girders, and end bulkhead forms of prestressed concrete girders may be wood. Interior voids for precast prestressed slabs with voids shall be formed by either wax soaked cardboard or expanded polystyrene forms. The interior void forms shall be secured in the position as shown in the shop drawings as approved by the Engineer, and shall remain in place.

Number 3. under the sixth paragraph is revised to read:

3. Be located 3-inches or more from the outside edge of the top flange on Series W42G, W50G, W58G, girders, and all prestressed concrete tub girders with webs with flanges, and 6-inches or more for all other prestressed concrete girders with flanges.

6-02.3(25)C Prestressing

The third paragraph is revised to read:

The Engineer may use load cells to check jacks, gauges, and calibration charts before and during tensioning.

Number 2. under the sixth paragraph is revised to read:

2. No welds or welding grounds shall be attached to metal forms, structural steel, or steel reinforcing bars of the structural member.

6-02.3(25)G Protection of Exposed Reinforcement

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

Just before placing concrete around the painted projecting bars or strands, the Contractor shall remove from them all spattered concrete remaining from girder casting, dirt, oil, and other foreign matter.

6-02.3(25)I Fabrication Tolerances

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

The girders shall be fabricated as shown in the shop drawings as approved by the Engineer, and shall meet the dimensional tolerances listed below.

Number 8. under the first paragraph is revised to read:

8. Strand Position in Prestressed Concrete Girder: ± $^1/_4$-inch from the center of gravity of an individual strand; ± $^1/_2$-inch from the center of gravity of a bundled strand group; ± 1-inch from the center of gravity of the harped strands at the girder ends.

Number 21. under the first paragraph is revised to read:

21. Differential Camber Between Girders in a Span (measured in place at the job site):

For I, Wide Flange I, bulb tee, and spliced prestressed concrete girders:	1/8-inch per 10-feet of beam length.
For deck bulb tee girders:	Cambers shall be equlized by an approved method when the differences in cambers between adjacent girders or stages measured at mid-span exceeds 1/4-inch.
For PCPS members:	±1/4-inch per ten feet of member length measured at midspan, but not greater than ±1/2-inch total.
For prestressed concrete tub girders:	±1/4-inch per ten feet of member length measured at midspan, but not greater than ± 1/2-inch total.

6-02.3(25)K Girder Deflection

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

The "D" dimensions shown in the Plans are computed girder deflections at midspan based on a time lapse of 40 and 120 days after release of the prestressing strands, and are intended to advise the Contractor as to the expected range of girder deflection at the time of deck forming.

The third paragraph is revised to read:

The Contractor shall control the deflection of prestressed concrete girders that are to receive a cast-in-place slab by scheduling fabrication between 40 and 120 days of slab placement on the erected girders.

The fourth sentence in the fourth paragraph is revised to read:

The actual girder deflection at the midspan may vary from the maximum estimated "D" dimension at the time of slab forming by a maximum of plus $^1/_2$-inch for girder lengths up to 80-feet, and plus 1-inch for girder lengths over 80-feet, but less than or equal to 140-feet, and plus $1^1/_2$-inches for girder lengths over 140-feet.

6-02.3(25)L Handling and Storage

The first paragraph is revised to read:

During handling and storage, each girder shall always be kept plumb and upright, and each precast prestressed member and prestressed concrete tub girder shall always be kept in the horizontal orientation as shown in the Plans. It shall be lifted only by the lifting embedments (strand lift loops or high-strength threaded steel bars) at either end. For strand lift loops, only 1/2-inch diameter or 0.6 inch diameter strand conforming to Section 9-07.10 shall be used, and a minimum 2-inch diameter straight pin of a shackle shall be used through the loops. Multiple loops shall be held level in the girder during casting in a manner that allows each loop to carry its share of the load during lifting. The minimum distance from the end of the girder to the strand lift loops shall be 1'-9".

The loops shall project a minimum of 1'-6" from the top of the girder, and shall extend to within 3-inches clear of the bottom of the girder, terminating with a 9-inch long 90 degree hook. Loads on individual loops shall be limited to 12 kips, and all girders shall be picked up at a minimum angle of 60 degrees from the top of the girder. For high-strength threaded steel bars, a minimum of two 1-3/8-inch diameter bars conforming to Section 9-07.11 shall be used at each end of the girder. The lifting hardware that connects to the bars shall be designed, detailed, and furnished by the Contractor. The minimum distance from the end of the girder to the centroid of the lifting bars shall be 3'-0". Lifting bars shall extend to within 3-inches clear of the bottom of the girder and shall be anchored in the bottom flange with steel plates and nuts. The minimum size of embedded plates for lifting bars shall be 1/2-inch thick by 3-inches square. Lifting forces on the lifting bars shall not exceed 58 kips on an individual bar, and shall be within 10 degrees of perpendicular to the top of the girder.

The first sentence in the second paragraph is supplemented with the following:

These temporary strands shall be of the same diameter, and shall be tensioned to the same force, as the permanent strands.

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

As an alternative for full length prestressed concrete girders, temporary top strands may be post-tensioned on the same day as the permanent prestressing is released into the girder.

The third sentence in the second paragraph is supplemented with the following:

The inside diameter of the debonding sleeves shall be large enough such that the temporary strands fully retract upon cutting.

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

The Contractor may request permission to use lifting embedments, lifting embedment locations, lifting angles, concrete release strengths, or temporary top strand configurations other than specified in the Plans.

The fourth sentence in the third paragraph is revised to read:

The Contractor's analysis shall conform to Article 5.4.1 of the *PCI Design Handbook, Precast and Prestressed Concrete*, Sixth Edition, or other approved methods.

The third sentence in the fourth paragraph is revised to read:

Precast prestressed members shall be supported at points between 1□-0" and 2□-0" from the member ends.

6-02.3(25)M Shipping

The third paragraph is revised to read:

Girder support during shipping shall be located as shown in the Plans. These support locations have been determined in accordance with the criteria specified in the WSDOT Bridge Design Manual LRFD Section 5.6.3.D. The Contractor shall verify the

applicability of these criteria to the trucking configuration intended for transport of the girders. If the trucking configuration differs from these criteria, the Contractor shall submit a girder shipping plan, with supporting calculations, to the Engineer for approval in accordance with Section 6-01.9.

The chart under the third paragraph is deleted.

The third sentence in the fourth paragraph is revise to read:

If the support locations are moved closer to the longitudinal ends of the girders, the calculations shall demonstrate adequate control of bending during shipping.

The sixth paragraph is revised to read:

Lateral bracing for shipping is not required for prestressed concrete tub girders and precast prestressed members as defined in Section 6-02.3(25).

The chart under the sixth paragraph is deleted.

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

For all prestressed concrete girders, except prestressed concrete tub girders and precast prestressed members, the Contractor shall provide bracing to control lateral bending during shipping, unless the Contractor furnishes calculations in accordance with Section 6-01.9 demonstrating that bracing is not necessary.

The eighth paragraph is revised to read:

Criteria for Checking Girder Stresses
At the Time of Lifting or Transporting and Erecting
Stresses at both the support and harping points shall be satisfied based on these criteria:

1. Allowable compression stress, fc = 0.60f'cm

   a. f'cm = compressive strength at time of lifting or transporting verified by test but shall not exceed design compressive strength (f'c) at 28 days in psi + 1,000 psi

2. Allowable tension stress, ksi

   a. With no bonded reinforcement = 3 times square root (f'cm) $\leq$0.20 ksi
   b. With bonded reinforcement to resist total tension force in the concrete computed on the basis of an uncracked section = 6.0 times square root (f'cm). The allowable tensile stress in the reinforcement is 30 ksi

3. Prestress losses

   a. for lifting from casting beds = computed losses at one day
   b. for transportation = computed losses at ten days

4. Impact on dead load

a. Lifting from casting beds = 0 percent
b. Transporting and erecting = 20 percent

6-02.3(25)N Prestressed Concrete Girder Erection

Number 4. under the first paragraph is revised to read:

4. Girder weights, lift points, lifting embedments and devices, spreaders, and angle of lifting cables in accordance with Section 6-02.3(25)L, etc.;

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

The Contractor shall hoist girders only by the lifting embedments at the ends, always keeping the girders plumb and upright.

6-02.3(25)O Deck Bulb Tee Girder Flange Connection

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

The Contractor shall submit a method of equalizing deck bulb tee girder (and precast prestressed member) deflections to the Engineer for approval in accordance with Section 6-01.9, except that the submittal shall be included with the deck bulb tee girder fabrication shop drawing submittal specified in Section 6-02.3(25)A.

6-02.3(26)A Shop Drawings

The address for FEDEX delivery under Item 1 in the first paragraph is revised to read:

Washington State Department of Transportation
Bridge and Structures Engineer
7345 Linderson Way SW
Tumwater, WA 98501-6504

The reference to Section 6-02.3(26)E in the fifth paragraph is revised to read Section 6-02.3(26)G.

6-02.3(28)A Shop Drawings

The first paragraph is revised to read:

Before casting the structural elements, the Contractor shall submit:

1. Seven sets of shop drawings for approval by the Department of Transportation Bridge and Structures Engineer, Construction Support, addressed as follows:

   If sent via US Postal Service:

   Washington State Department of Transportation
   Bridge and Structures Engineer, Construction Support
   P. O. Box 47340
   Olympia, WA 98504-7340

   If sent via FedEx:
   Washington State Department of Transportation
   Bridge and Structures Engineer, Construction Support
   7345 Linderson Way SW

Tumwater, WA 98501-6504; and

2. Two sets of shop drawings to the Project Engineer.

6-02.3(28)F Tolerances

This section is revised to read:

The units shall be fabricated as shown in the Plans, and shall meet the dimensional tolerances listed in the latest edition of PCI-MNL-166, unless otherwise required by the Plans or Special Provisions.

6-02.4 Measurement

This section is supplemented with the following:

No specific unit of measure will apply to the lump sum item for cure box.

Bridge approach slab will be measured by the square yard.

6-02.5 Payment

This section is supplemented with the following:

"Cure Box", lump sum.
The lump sum contract price for "Cure Box" shall be full pay for all costs for providing, operating, maintaining, moving and removing the cure boxes and providing, maintaining and operating all necessary power sources and connections needed to operate the curing boxes.

"Bridge Approach Slab", per square yard.
The unit contract price per square yard for "Bridge Approach Slab" shall be full pay for providing, placing, and compacting the crushed surfacing base course, furnishing and placing Class 4000A concrete, and furnishing and installing compression seal, anchors, and reinforcing steel.

SECTION 6-03, STEEL STRUCTURES
August 6, 2007

6-03.3(7) Shop Plans

The first two sentences in the first paragraph are revised to read:

The Contractor shall submit for approval all shop detail plans for fabricating the steel. These shall be sent to the Department of Transportation Bridge and Structures Engineer, Construction Support, addressed as follows:

If sent via US Postal Service:

Washington State Department of Transportation
Bridge and Structures Engineer, Construction Support
P. O. Box 47340
Olympia, WA 98504-7340

If sent via FedEx:

Washington State Department of Transportation
Bridge and Structures Engineer, Construction Support
7345 Linderson Way SW
Tumwater, WA 98501-6504

6-03.3(14) Edge Finishing

The first paragraph is revised to read:

All rolled, sheared, and thermal cut edges shall be true to line and free of rough corners and projections. Corners along exposed sheared or cut edges shall be broken by light grinding or another method approved by the Engineer to achieve an approximate 1/16-inch chamfer or rounding.

The third paragraph is revised to read:

Re-entrant corners or cuts shall be filleted to a minimum radius of 1-inch.

6-03.3(15) Planing of Bearing Surfaces

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

When assembled, caps and base plates of columns and the sole plates of girders and trusses shall have a fit tolerance within 1/32-inch for 75 percent of the contact area.

6-03.3(21)A Web Plates

This section is revised to read:

If web plates are spliced, gaps between plate ends shall be set at shop assembly to measure 1/4-inch, and shall not exceed 3/8-inch.

6-03.3(25)A Welding Inspection

Number 4. under **Ultrasonic Inspection** is revised to read:

4. Light, signal, and strain pole standards, as defined in Section 9-29.6.

Number 1. h, under **Magnetic Particle Inspection** is revised to read:

h. Light, signal, and strain pole standards, as defined in Section 9-29.6.

6-03.3(28)A Method of Shop Assembly

The first sentence in "c." under Number 2. is revised to read:

For trusses and girders: After the first stage has been completed, each subsequent stage shall be assembled to include: two truss panels or girder shop sections of the previous stage (or one truss panel or girder shop section, if approved by the Engineer) and one or more truss panels or girder shop sections added at the advancing end.

6-03.3(33) Bolted Connections

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

All bolted connections are slip critical.

SECTION 6-05, PILING
August 7, 2006

6-05.3(11)H Pile Driving From or Near Adjacent Structures

The second paragraph, including the formula and table, is revised to read:

Freshly placed concrete in the vicinity of the pile driving operation shall be protected against vibration in accordance with Section 6-02.3(6)D.

The third paragraph is deleted.

6-05.5 Payment

The paragraph following "Furnishing St. Piling", per linear foot is revised to read:

The unit contract price per linear foot for "Furnishing (type) Piling (____)" shall be full pay for furnishing the piling specified, including fabricating and installing the steel reinforcing bar cage, and casting and curing the concrete, as required for concrete piling. Such price shall also be full pay, when measurement includes, for piling length ordered but not driven.

SECTION 6-07, PAINTING
August 7, 2006

6-07.2 Materials

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

Material used for field abrasive blasting shall meet Military Specification MIL-A-22262B(SH) as listed on QPL-22262-28 as maintained by the Department of the Navy.

6-07.3(2)A Bridge Cleaning

In the third paragraph under **Pressure Flushing**, the US Sieve size for Apparent opening size (ASTM D4751) is revised to read:

#100 US Sieve

SECTION 6-09, MODIFIED CONCRETE OVERLAYS
August 6, 2007

6-09.3(2) Submittals

Number 3. is revised to read:

3. The Runoff Water Disposal Plan (if a hydro-demolition machine is used). The Runoff Water Disposal Plan shall describe all provisions for the containment, collection, filtering, and disposal of all runoff water and associated contaminants and debris generated by the hydro-demolition process, including containment, collection and disposal of runoff water and debris escaping through breaks in the bridge deck.

Number 7. is revised to read:

7. Paving equipment specifications and details of the screed rail support system, including details of anchoring the rails and providing rail continuity.

6-09.3(3)A General

The third paragraph is revised to read:

For fly ash and microsilica modified concrete, all water reducing and air entraining admixtures, and superplasticizers, shall be used in accordance with the admixture manufacturer's recommendations, and as approved by the Engineer.

6-09.3(6) Further Deck Preparation

This section is revised to read:

Once the lane or strip being overlaid has been cleaned of debris from scarifying, the Contractor, with the Engineer, shall perform an inspection of the completed work and the Contractor shall mark those areas of the existing bridge deck that are authorized by the Engineer for further deck preparation by the Contractor. When hydro-demolition is used as the method of scarification, the inspection for further deck preparation shall take place after one pass of the hydro-demolition machine.

Further deck preparation will be required when any one of the following conditions is present:

1. Unsound concrete.
2. Lack of bond between existing concrete and reinforcing steel.
3. Exposure of reinforcing steel to a depth of one-half of the periphery of a bar for a distance of 12-inches or more along the bar.
4. Existing non-concrete patches as authorized by the Engineer.

Further deck preparation performed beyond the areas authorized by the Engineer will be at the Contractor's expense in accordance with Section 1-05.7. If the concrete overlay is placed on a bridge deck as part of the same contract as the bridge deck construction, then all work associated with the further deck preparation shall be performed at no additional expense to the Contracting Agency.

6-09.3(6)C Placing Deck Repair Concrete

This section is revised to read:

Deck repair concrete for modified concrete overlays shall be either modified concrete or concrete Class M.

Before placing any deck repair concrete, the Contractor shall flush the existing concrete in the repair area with water and make sure that the existing concrete is well saturated. The Contractor shall remove any freestanding water prior to placing the deck repair concrete. The Contractor shall place the deck repair concrete onto the existing concrete while it is wet.

All deck repairs with exposed bottom layer steel reinforcing bars, all full depth deck repairs, and all deck repairs of an area greater than ten square feet (measured at the top layer of steel reinforcement) shall be repaired, and wet cured for 42 hours in accordance with Section 6-09.3(13), prior to placing the concrete overlay. During the curing period, all vehicular and foot traffic shall be prohibited on the repair area.

Small deck repairs, defined as those of an area equal to or less than ten square feet (measured at the top layer of steel reinforcement), shall be filled with concrete overlay material during the placement of the concrete overlay.

6-09.3(14) Checking for Bond

The first paragraph is revised to read:

After the requirements for curing have been met, the entire overlaid surface shall be sounded by the Contractor, in a manner approved by and in the presence of the Engineer, to ensure total bond of the concrete to the bridge deck. Concrete in unbonded areas shall be removed and replaced by the Contractor with the same modified concrete as used in the overlay. Removal and replacement of the overlay in unbonded areas shall be performed at the expense of the Contracting Agency, except as specified in Section 6-09.3(6) when the overlay is placed on a bridge deck as part of the same contract as the bridge deck construction. All cracks, except those that are significant enough to require removal, shall be thoroughly filled and sealed as specified in Section 6-09.3(12).

6-09.4 Measurement

The last paragraph is revised to read:

When further deck preparation is measured by volume, it will be measured by the cubic foot of material removed from the deck repair locations. The depth measurement at each deck repair location will be the average depth beneath a straightedge placed at the level of the existing deck surface. The area measurement at each deck repair location will be the surface area of the removed concrete.

6-09.5 Payment

The paragraph following "Modified Conc. Overlay", per cubic foot, is revised to read:

The unit contract price per cubic foot for "Modified Conc. Overlay" shall be full pay for furnishing the modified concrete overlay, including the overlay material placed into small deck repairs in accordance with Section 6-09.3(6)C.

SECTION 6-10, CONCRETE BARRIER
December 4, 2006

6-10.2 Materials

The fourth paragraph is revised to read:

Connecting pins, drift pins and steel pins for type 3 anchors shall conform to Section 9-06.5(4) and be galvanized in accordance with AASHTO M 232. All other hardware shall conform to Section 9-06.5(1) and be galvanized in accordance with AASHTO M 232.

SECTION 6-11, PRECAST CONCRETE RETAINING WALL STEMS
April 2, 2007

This section including title is revised to read:

SECTION 6-11, REINFORCED CONCRETE WALLS

6-11.1 Description

This work consists of constructing reinforced concrete retaining walls, including those shown in the Standard Plans, L walls, and counterfort walls.

6-11.2 Materials

Materials shall meet the requirements of the following sections:

Cement	9-01
Aggregates for Portland Cement Concrete	9-03.1
Gravel Backfill	9-03.12
Premolded Joint Filler	9-04.1(2)
Steel Reinforcing Bar	9-07.2
Epoxy-Coated Steel Reinforcing Bar	9-07.3
Concrete Curing Materials and Admixtures	9-23
Fly Ash	9-23.9
Water	9-25

Other materials required shall be as specified in the Special Provisions.

6-11.3 Construction Requirements

6-11.3(1) Submittals

The Contractor shall submit all excavation shoring plans to the Engineer for approval in accordance with Section 2-09.3(3)D.

The Contractor shall submit all falsework and formwork plans to the Engineer for approval in accordance with Sections 6-02.3(16) and 6-02.3(17).

If the Contractor elects to fabricate and erect precast concrete wall stem panels, the following information shall be submitted to the Engineer for approval in accordance with Sections 6-01.9 and 6-02.3(28)A:

1. Working drawings for fabrication of the wall stem panels, showing dimensions, steel reinforcing bars, joint and joint filler details, surface finish details, lifting devices with the manufacturer's recommended safe working capacity, and material specifications.

2. Working drawings and design calculations for the erection of the wall stem panels showing dimensions, support points, support footing sizes, erection blockouts, member sizes, connections, and material specifications.

3. Design calculations for the precast wall stem panels, the connection between the precast panels and the cast-in-place footing, and all modifications to the cast-in-place footing details as shown in the Plans or Standard Plans.

The Contractor shall not begin excavation and construction operations for the retaining walls until receiving the Engineer's approval of the above submittals.

6-11.3(2) Excavation and Foundation Preparation

Excavation shall conform to Section 2-09.3(3), and to the limits and construction stages shown in the Plans. Foundation soils found to be unsuitable shall be removed and replaced in accordance with Section 2-09.3(1)C.

6-11.3(3) Precast Concrete Wall Stem Panels

The Contractor may fabricate precast concrete wall stem panels for construction of Standard Plan Retaining Wall Types 1 through 6 and 1SW through 6SW. Precast concrete wall stem panels may be used for construction of non-Standard Plan retaining walls if allowed by the Plans or Special Provisions. Precast concrete wall stem panels shall conform to Section 6-02.3(28), and shall be cast with Class 4000 concrete.

The precast concrete wall stem panels shall be designed in accordance with the requirements for Load Factor Design in the following codes:

1. For all loads except as otherwise noted - AASHTO Standard Specifications for Highway Bridges, latest edition and current interims. The seismic design shall use the acceleration coefficient and soil profile type as specified in the Plans.

2. For all wind loads - AASHTO Guide Specifications for Structural Design of Sound Barriers, latest edition and current interims.

The precast concrete wall stem panels shall be fabricated in accordance with the dimensions and details shown in the Plans, except as modified in the shop drawings as approved by the Engineer.

The precast concrete wall stem panels shall be fabricated full height, and shall be fabricated in widths of 8 feet, 16 feet, and 24 feet.

The construction tolerances for the precast concrete wall stem panels shall be as follows:

Height	±1/4	inch
Width	±1/4	inch
Thickness	+1/4	inch
	-1/8	inch
Concrete cover for steel reinforcing bar	+3/8	inch
	-1/8	inch
Width of precast concrete wall stem panel joints	±1/4	inch
Offset of precast concrete wall stem panels (Deviation from a straight line extending 5 feet on each side of the panel joint)	±1/4	inch

The precast concrete wall stem panels shall be constructed with a mating shear key between adjacent panels. The shear key shall have beveled corners and shall be 1-1/2 inches in thickness. The width of the shear key shall be 3-1/2 inches minimum and 5-1/2 inches maximum. The shear key shall be continuous and shall be of uniform width over the entire height of the wall stem.

The Contractor shall provide the specified surface finish as noted, and to the limits shown, in the Plans to the exterior concrete surfaces. Special surface finishes achieved with form liners shall conform to Sections 6-02.2 and 6-02.3(14) as supplemented in the Special Provisions. Rolled on textured finished shall not be used. Precast concrete wall

stem panels shall be cast in a vertical position if the Plans call for a form liner texture on both sides of the wall stem panel.

The precast concrete wall stem panel shall be rigidly held in place during placement and curing of the footing concrete.

The precast concrete wall stem panels shall be placed a minimum of one inch into the footing to provide a shear key. The base of the precast concrete wall stem panel shall be sloped ½ inch per foot to facilitate proper concrete placement.

To ensure an even flow of concrete under and against the base of the wall panel, a form shall be placed parallel to the precast concrete wall stem panel, above the footing, to allow a minimum one foot head to develop in the concrete during concrete placement.

The steel reinforcing bars shall be shifted to clear the erection blockouts in the precast concrete wall stem panel by 1-1/2 inches minimum.

All precast concrete wall stem panel joints shall be constructed with joint filler installed on the rear (backfill) side of the wall. The joint filler material shall extend from two feet below the final ground level in front of the wall to the top of the wall. The joint filler shall be a nonorganic flexible material and shall be installed to create a waterproof seal at panel joints.

The soil bearing pressure beneath the falsework supports for the precast concrete wall stem panels shall not exceed the maximum design soil pressure shown in the Plans for the retaining wall.

6-11.3(4) Cast-In-Place Concrete Construction

Cast-in-place concrete for concrete retaining walls shall be formed, reinforced, cast, cured, and finished in accordance with Section 6-02, and the details shown in the Plans and Standard Plans. All cast-in-place concrete shall be Class 4000.

The Contractor shall provide the specified surface finish as noted, and to the limits shown, in the Plans to the exterior concrete surfaces. Special surface finishes achieved with formliners shall conform to Sections 6-02.2 and 6-02.3(14) as supplemented in the Special Provisions.

Cast-in-place concrete for adjacent wall stem sections (between vertical expansion joints) shall be formed and placed separately, with a minimum 12 hour time period between concrete placement operations.

Premolded joint filler, 1/2" thick, shall be placed full height of all vertical wall stem expansion joints in accordance with Section 6-01.14.

6-11.3(5) Backfill, Weepholes and Gutters

Unless the Plans specify otherwise, backfill and weepholes shall be placed in accordance with Standard Plan D-4 and Section 6-02.3(22). Gravel backfill for drain shall be compacted in accordance with Section 2-09.3(1)E. Backfill within the zone defined as bridge approach embankment in Section 1-01.3 shall be compacted in accordance with Method C of Section 2-03.3(14)C. All other backfill shall be compacted in accordance with Method B of Section 2-03.3(14)C, unless otherwise specified.

Cement concrete gutter shall be constructed as shown in the Standard Plans.

6-11.3(6) Traffic Barrier and Pedestrian Barrier

When shown in the Plans, traffic barrier and pedestrian barrier shall be constructed in accordance with Sections 6-02.3(11)A and 6-10.3(2), and the details shown in the Plans and Standard Plans.

6-11.4 Measurement

Concrete Class 4000 for retaining wall will be measured as specified in Section 6-02.4.

Steel reinforcing bar for retaining wall and epoxy-coated steel reinforcing bar for retaining wall will be measured as specified in Section 6-02.4.

Traffic barrier and pedestrian barrier will be measured as specified in Section 6-10.4 for cast-in-place concrete barrier.

6-11.5 Payment

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

"Conc. Class 4000 For Retaining Wall", per cubic yard.
All costs in connection with furnishing and installing weep holes and premolded joint filler shall be included in the unit contract price per cubic yard for "Conc. Class 4000 for Retaining Wall".

"St. Reinf. Bar For Retaining Wall", per pound.
"Epoxy-Coated St. Reinf. Bar For Retaining Wall", per pound.

"Traffic Barrier", per linear foot.
"Pedestrian Barrier", per linear foot.
The unit contract price per linear foot for "___ Barrier" shall be full pay for constructing the barrier on top of the retaining wall, except that when these bid items are not included in the proposal, all costs in connection with performing the work as specified shall be included in the unit contract price per cubic yard for "Conc. Class 4000 For Retaining Wall", and the unit contract price per pound for "___ Bar For Retaining Wall".

SECTION 6-12, NOISE BARRIER WALLS
April 2, 2007

6-12.3(6) Precast Concrete Panel Fabrication and Erection

Item 5 following the first paragraph of Section 6-12.3(6) is renumbered to item 7.

The below new items 5 and 6 are is inserted ahead of renumbered item 7:

5. Precast concrete panels shall not be erected until the foundations for the panels have attained a minimum compressive strength of 3,400 psi.

6. The bolts connecting the precast concrete panels to their foundation shall be tightened to "snug tight" as defined in Section 6-03.3 (32).

SECTION 6-13, STRUCTURAL EARTH WALLS
August 6, 2007

6-13.2 Materials
The reference to "Gravel Backfill 9-03.12(2)", is deleted.

6-13.3(2) Submittals
The fifth paragraph is revised to read:

The design calculation and working drawing submittal shall include detailed design calculations and all details, dimensions, quantities, and cross-sections necessary to construct the wall. The calculations shall include a detailed explanation of any symbols, design input, material property values, and computer programs used in the design of the walls. All computer output submitted shall be accompanied by supporting hand calculations detailing the calculation process. If MSEW 3.0, or a later version, is used for the wall design, hand calculations supporting MSEW are not required.

The sixth paragraph is supplemented with the following:

6. The minimum soil reinforcement length shall be the greater dimension of the following:

    a. 0.7 times the wall design height H.
    b. 6'-0".
    c. That required by design to meet internal stability design requirements, soil bearing pressure design requirements, and constructability requirements.

6-13.3(6) Welded Wire Faced Structural Earth Wall Erection
This section is supplemented with the following:

Geosynthetic reinforcing, when used, shall be placed in accordance with Sections 2-12.3 and 6-13.3(5).

6-13.3(7) Backfill
Under number 4 in the fifth paragraph, the words "light mechanical tampers" are revised to "a plate compactor".

6-13.3(9) SEW Traffic Barrier and SEW Pedestrian Barrier
This Section is revised to read:

The Contractor, in conjunction with the structural earth wall manufacturer, shall design and detail the SEW traffic barrier and SEW pedestrian barrier in accordance with Section 6-13.3(2) and the above ground geometry details shown in the Plans. The barrier working drawings and supporting calculations shall include, but not be limited to, the following:

1. Complete details of barrier cross section geometry, including the portion below ground, and accommodations necessary for bridge approach slabs, PCCP, drainage facilities, underground utilities, and sign support, luminaire pole, traffic signal standard, and other barrier attachments.

2. Details of the steel reinforcement of the barrier, including a bar list and bending diagram in accordance with Section 6-02.3(24), and including additional reinforcement required at sign support, luminaire pole, traffic signal standard, and other barrier attachment locations.

3. Details of the interface of, and the interaction between, the barrier and the top layers of structural earth wall reinforcement and facing.

4. When the Plans specify placement of conduit pipes through the barrier, details of conduit pipe and junction box placement.

SEW traffic barrier and SEW pedestrian barrier shall be constructed in accordance with Sections 6-02.3(11)A and 6-10.3(2), and the details in the Plans and in the structural earth wall working drawings as approved by the Engineer.

SECTION 6-14, GEOSYNTHETIC RETAINING WALLS
December 4, 2006

6-14.3(2) Submittals

Item 2 is revised to read:

2. The Contractor's proposed wall construction method, including proposed forming systems, types of equipment to be used, proposed erection sequence and details of how the backfill will be retained during each stage of construction.

6-14.3(4) Erection and Backfill

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

The Contractor shall place and compact the wall backfill in accordance with the wall construction sequence detailed in the Plans and Method C of Section 2-03.3(14)C, except as follows:

Under number 5 in the eighth paragraph, the words "light mechanical tempers" are revised to "a plate compactor".

6-14.4 Measurement

The first three paragraphs are revised to read:

Permanent geosynthetic retaining wall and temporary geosynthetic retaining wall will be measured by the square foot of face of completed wall. Corner wrap area and extensions of the geosynthetic wall beyond the area of wall face shown in the Plans or staked by the Engineer are considered incidental to the wall construction and will not be included in the measurement of the square foot of face of completed geosynthetic retaining wall.

Gravel borrow for geosynthetic retaining wall backfill will be measured as specified in Section 2-03.4.

Shotcrete facing and concrete fascia panel will be measured by the square foot surface area of the completed facing or fascia panel, measured to the neat lines of the facing or panel as shown in the Plans. When a footing is required, the measurement of the fascia panel area will include the footing.

6-14.5 Payment

The bid item "Borrow for Geosynthetic Wall Incl. Haul" and subsequent paragraph are revised to read:

"Gravel Borrow for Geosynthetic Ret. Wall Incl. Haul", per ton or per cubic yard.
All costs in connection with furnishing and placing backfill material for temporary or permanent geosynthetic retaining walls as specified shall be included in the unit contract price per ton or per cubic yard for "Gravel Borrow for Geosynthetic Ret. Wall Incl. Haul".

SECTION 6-15, SOIL NAIL WALLS
August 7, 2006

6-15.3(8) Soil Nail Testing and Acceptance

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

The pressure gauge shall be graduated in increments of either 100 psi or two percent of the maximum test load, whichever is less.

SECTION 6-16, SOLDIER PILE AND SOLDIER PILE TIEBACK WALLS
August 7, 2006

6-16.3(5) Backfilling Shaft

The first and second paragraphs are revised to read:

The excavated shaft shall be backfilled with either controlled density fill (CDF), or pumpable lean concrete, as shown in the Plans and subject to the following requirements:

1. Dry shaft excavations shall be backfilled with CDF.

2. Wet shaft excavations shall be backfilled with pumpable lean concrete.

3. Pumpable lean concrete shall be a Contractor designed mix providing a minimum 28 day compressive strength of 100 psi. Acceptance of pumpable lean concrete will conform to the acceptance requirements specified in Section 2-09.3(1) for CDF.

4. A wet shaft is defined as a shaft where water is entering the excavation and remains present to a depth of six inches or more.

5. When the Plans or test hole boring logs identify the presence of a water table at or above the elevation of the bottom of soldier pile shaft, the excavation shall be considered as wet, except as otherwise noted. Such a shaft may be considered a dry shaft provided the Contractor furnishes and installs casing that is sufficiently sealed into competent soils such that water cannot enter the excavation.

Placement of the shaft backfill shall commence immediately after completing the shaft excavation and receiving the Engineer's approval of the excavation. CDF or pumpable lean concrete shall be placed in one continuous operation to the top of the shaft. Vibration of shaft backfill is not required.

6-16.3(6) Installing Timber Lagging and Permanent Ground Anchors

The first paragraph is revised to read:

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

SECTION 6-17, PERMANENT GROUND ANCHORS

August 6, 2007

6-17.3(7) Installing Permanent Ground Anchors

The eleventh paragraph is revised to read:

The bearing plate and anchor head shall be placed so the axis of the tendon and the drill hole are both perpendicular to the bearing plate within plus or minus three degrees and the axis of the tendon passes through the center of the bearing plate at the intersection of the trumpet and the bearing plate when fully seated with the alignment load.

6-17.3(8) Testing and Stressing

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

The pressure gauge shall be graduated in increments of either 100 psi or two percent of the maximum test load, whichever is less.

SECTION 6-18, SHOTCRETE FACING

August 6, 2007

6-18.3(3) Testing

The first two sentences in the second paragraph are revised to read:

The Contractor shall remove at least three cores each from 12-inch by 12-inch shotcrete test panels in accordance with AASHTO T 24. Cores removed from the panels shall be immediately wrapped in wet burlap and sealed in a plastic bag.

6-18.3(3)A Pre-production Testing

This section is revised to read:

At least one 12-inch by 12-inch panel for each mix design shall be prepared for evaluation and testing of the shotcrete quality and strength. One 48-inch by 48-inch qualification panel shall be prepared for evaluation and approval of the proposed method for shotcrete installation, finishing, and curing. Both the 12-inch and the 48-inch panels shall be constructed using the same methods and initial curing proposed to construct the shotcrete facing, except that the 12-inch panel shall not include wire reinforcement. The 12-inch panel shall be constructed to the minimum thickness

necessary to obtain the required core samples. The 48-inch panel shall be constructed to the same thickness as proposed for the production facing. Production shotcrete work shall not begin until satisfactory test results are obtained and the panels are approved by the Engineer.

6-18.3(3)B Production Testing

The first sentence is revised to read:

The Contractor shall make at least one 12-inch by 12-inch panel for each section of facing shot.

6-18.3(7) Shotcrete Application

The sixth paragraph is revised to read:

The shotcrete shall be cured by applying a clear curing compound in accordance with Section 9-23.2. The curing compound shall be applied immediately after final gunning. Two coats of curing compound shall be applied to the shotcrete surface immediately after finishing. When shotcrete is specified in the Plans as the final fascia finish, the curing requirements specified in Section 6-02.3(11) shall apply.

SECTION 7-01, DRAINS
August 7, 2006

7-01.3 Construction Requirements

This section is revised to read:

A trench of the dimensions shown in the Plans or as specified by the Engineer shall be excavated to the grade and line given by the Engineer.

Section 7-01.3 is supplemented with the following new sub-sections:

7-01.3(1) Drain Pipe

Drain pipe shall be laid in conformity with the line and grades as shown in the Plans. The drain pipe shall be laid with soiltight joints unless otherwise specified. Concrete drain pipe shall be laid with the bell or larger end upstream. PVC drain pipe shall be jointed with a bell and spigot joint using a flexible elastomeric seal as described in Section 9-04.8. The bell shall be laid upstream. PE drain pipe shall be jointed with snap-on, screw-on, bell and spigot, or wraparound coupling bands as recommended by the manufacturer of the tubing.

7-01.3(2) Underdrain Pipe

When underdrain pipe is being installed as a means of intercepting ground or surface water, the trench shall be fine-graded in the existing soil 3 inches below the grade of the pipe as shown in the Plans. Gravel backfill shall be used under the pipe. Gravel backfill shall be placed to the depth shown in the Plans or as designated by the Engineer. All backfill shall be placed in 12-inch maximum layers and be thoroughly compacted with three passes of a vibratory compactor for each layer. The Contractor shall use care in placing the gravel backfill material to prevent its contamination.

Class 2 perforations shall be used unless otherwise specified. When Class 1 perforations are specified the perforated pipe shall be laid with the perforations down. Upon final acceptance of the work, all drain pipes shall be open, clean, and free

draining. Perforated pipe does not require a watertight joint. PVC underdrain pipe shall be jointed using either the flexible elastomeric seal as described in Section 9-04.8 or solvent cement as described in Section 9-04.9, at the option of the Contractor unless otherwise specified in the Plans. The bell shall be laid upstream. PE drainage tubing underdrain pipe shall be jointed with snap-on, screw-on, bell and spigot, or wraparound coupling bands, as recommended by the manufacturer of the tubing.

SECTION 7-02, CULVERTS
January 3, 2006

7-02.2 Materials
The fifth and seventh paragraphs are deleted:

SECTION 7-04, STORM SEWERS
January 3, 2006

7-04.2 Materials
The fourth and sixth paragraphs are deleted:

SECTION 8-01, EROSION CONTROL AND WATER POLLUTION CONTROL
August 6, 2007

8-01.3(1) General
The eighth paragraph, beginning with "In western Washington, erodible soil", is deleted and replaced with the following:

Erodible soil not being worked, whether at final grade or not, shall be covered within the following time period, using an approved soil covering practice, unless authorized otherwise by the Engineer:

In western Washington (west of the Cascade Mountain crest):

October 1 through April 30	2 days maximum
May 1 to September 30	7 days maximum

In eastern Washington (east of the Cascade Mountain crest.):

October 1 through June 30	5 days maximum
July 1 through September 30	10 days maximum

8-01.3(1)B Erosion and Sediment Control (ESC) Lead
This section is revised to read:

The Contractor shall identify the ESC Lead at the preconstruction discussions and in the TESC plan. The ESC Lead shall have, for the life of the contract, a current Certificate of Training in Construction Site Erosion and Sediment Control from a course approved by the Washington State Department of Ecology. The ESC Lead shall be listed on the Emergency Contact List required under Section 1-05.13(1).

The ESC Lead shall implement the Temporary Erosion and Sediment Control (TESC) plan. Implementation shall include, but is not limited to:

1. Installing and maintaining all temporary erosion and sediment control Best Management Practices (BMPs) included in the TESC plan to assure continued performance of their intended function. Damaged or inadequate TESC BMPs shall be corrected immediately.

2. Updating the TESC plan to reflect current field conditions.

When a TESC plan is included in the contract plans, the Contractor shall inspect all on-site erosion and sediment control BMPs at least once every calendar week and within 24 hours of runoff events in which stormwater discharges from the site. Inspections of temporarily stabilized, inactive sites may be reduced to once every calendar month. The Erosion and Sediment Control Inspection Form (Form Number 220-030 EF) shall be completed for each inspection and a copy shall be submitted to the Engineer no later than the end of the next working day following the inspection.

8-01.3(2)E Tacking Agent and Soil Binders

The third paragraph, (PAM) is revised to read:

Soil Binding Using Polyacrylamide (PAM)

The PAM shall be applied on bare soil completely dissolved and mixed in water or applied as a dry powder. Dissolved PAM shall be applied at a rate of not more than 2/3 pound per 1,000 gallons of water per acre. A minimum of 200 pounds per acre of cellulose fiber mulch treated with a non-toxic dye shall be applied with the dissolved PAM. Dry powder applications may be at a rate of 5 pounds per acre using a hand-held fertilizer spreader or a tractor-mounted spreader.

8-01.3(2)F Dates for Application of Final Seed, Fertilizer, and Mulch

The second paragraph under East of the summit of the Cascade Range, beginning with "The Contractor will be responsible", is deleted.

8-01.3(9)A Silt Fence

The second paragraph is supplemented with the following:

The strength of the wire or plastic mesh shall be equivalent to or greater than that required in Table 6 for unsupported geotextile (i.e., 180 lbs. grab tensile strength).

The fourth paragraph is supplemented with the following:

Geotextile material shall meet the requirements of Section 9-33 Table 6.

The fifth paragraph is revised to read:

Posts shall be either wood or steel. Wood posts shall have minimum dimensions of 1 1/4 inches by 1 1/4 inches by the minimum length shown in the Plans. Steel posts shall have a minimum weight of 0.90 lbs/ft

The reference to Section 8-01.3(16) in the sixth paragraph is revised to Section 8-01.3(15).

8-01.4 Measurement

The thirteenth paragraph is revised to read:

Seeding, fertilizing, liming, mulching, mowing, and soil binder or tacking agent will be measured by the acre by ground slope measurement or through the use of design data.

This section is supplemented with the following:

Coir log will be measured by the linear foot along the ground line of the completed installation.

8-01.5 Payment

The following bid item is inserted after "Compost Sock", per linear foot:

"Coir Log", per linear foot

This section is supplemented with the following:

"Mowing", per acre.
"Seeding and Mulching", per acre.
"Soil Binder or Tacking Agent", per acre.

SECTION 8-02, ROADSIDE RESTORATION
August 6, 2007

8-02.3(8) Planting

The seventh and eighth paragraphs are deleted and replaced with the following:

All burlap, baskets, string, wire and other such materials shall be removed from the hole when planting balled and burlapped plants. The plant material shall be handled in such a manner that the root systems are kept covered and damp at all times. The root systems of all bare root plant material shall be dipped in a slurry of silt and water immediately prior to planting. The root systems of container plant material shall be moist at the time of planting. In their final position, all plants shall have their top true root (not adventitious root) no more than 1" below the soil surface, no matter where that root was located in the original root ball or container. After planting, the backfill material and root ball shall be thoroughly watered in within 24 hours.

8-02.3(9) Pruning, Staking, Guying, and Wrapping

The first paragraph is revised to read:

Plants shall be pruned at the time of planting, only to remove minor broken or damaged twigs, branches or roots. Pruning shall be done with a sharp tool and shall be done in such a manner as to retain or to encourage natural growth characteristics of the plants. All other pruning shall be performed only after the plants have been in the ground at least one year.

8-02.3(12) Completion of Initial Planting

The second sentence in number 1. is deleted.

8-02.3(13) Plant Establishment

The fourth paragraph is revised to read:

During the first year of plant establishment under PSIPE, the Contractor shall meet monthly with the Engineer for the purpose of joint inspection of the planting material on

a mutually agreed upon schedule. The Contractor shall correct all conditions unsatisfactory to the Engineer within a 10-day period immediately following the inspection. If plant replacement is required, the Contractor shall, within the 10-day period, propose a plan and schedule for the plant replacement to occur immediately at the beginning of the planting period as designated in Section 8-02.3(8). Failure to comply with corrective steps as outlined by the Engineer shall constitute justification for the Contracting Agency to take corrective steps and to deduct all costs thereof from any monies due the Contractor. At the end of the plant establishment period, plants that do not show normal growth shall be replaced.

The seventh paragraph is revised to read:

During the plant establishment period(s) after PSIPE, the Contractor shall perform all work necessary for the continued healthy and vigorous growth of all plant material as directed by the Engineer.

8-02.3(14) Plant Replacement

The first paragraph is revised to read:

The Contractor shall be responsible for growing or providing enough plants for replacement of all plant material rejected through first year plant establishment. All replacement plant material shall be inspected and approved by the Engineer prior to installation. All rejected plant material shall be replaced at dates approved by the Engineer.

The second paragraph is supplemented with the following:

Replacement plant material larger than specified in the Plans shall meet the applicable section requirements of the ASNS for container class, ball size, spread, and branching characteristics.

8-02.4 Measurement

The measurement statement for Brush Layer is revised to read:

Brush layer will be measured by the linear foot along the ground line.

The measurement statement for Live Stake Row is revised to read:

Live stake row will be measured by the linear foot along the ground line

The measurement statement for Fascine is revised to read:

Fascine will be measured by the linear foot along the ground line

The measurement statement for Live Brush Mattress is revised to read:

Live brush mattress will be measured by the surface square yard along the ground slope line.

8-02.5 Payment

The first paragraph below the bid item "PSIPE ___" is revised to read:

The unit contract price for "Plant Selection ___", per each, and "PSIPE ___", per each, shall be full pay for all materials, labor, tools, equipment, and supplies necessary for weed control within the planting area, planting area preparation, fine grading, planting, cultivating, , plant storage and protection, fertilizer and root dip, staking, cleanup, and water necessary to complete planting operations as specified.

The seventh paragraph below the bid item "PSIPE___" is revised to read:

Payment shall be increased to the appropriate percentage upon reaching the following plant establishment milestones:

June 30th	80%
September 30th	90%
Completion of 1st year plant establishment or after all replacement plants have been installed, whichever is later	100%

The pay statement for "Fertilizer" is revised to read:

"Fertilizer", per pound shall be full pay for furnishing and applying the fertilizer.

SECTION 8-04, CURBS, GUTTERS, AND SPILLWAYS
December 4, 2006

8-04.3(2) Extruded Asphalt Concrete Curbs, and Gutters

The first paragraph is supplemented with the following:

Just prior to placing the curb, a tack coat of asphalt shall be applied to the existing pavement surface at the rate ordered by the Engineer.

8-04.4 Measurement

The first paragraph is revised to read:

All curbs, gutters, and spillways will be measured by the linear foot along the line and slope of the completed curbs, gutters, or spillways, including bends. Measurement of cement concrete curb and cement concrete curb and gutter, when constructed across driveways or sidewalk ramps, will include the width of the driveway or sidewalk ramp.

SECTION 8-06, CEMENT CONCRETE DRIVEWAY ENTRANCES
April 2, 2007

8-06.2 Materials

The second paragraph is deleted.

8-06.3 Construction Requirements

The following new paragraph is inserted in front of existing paragraph one.

Cement concrete driveway approaches shall be constructed with air entrained concrete Class 4000 conforming to the requirements of Section 6-02 or Portland Cement Concrete Pavement conforming to the requirements of Section 5-05.

SECTION 8-08, RUMBLE STRIPS
April 3, 2006

8-08.1 Description
The first sentence is revised to read:

This work consists of constructing centerline and shoulder rumble strips by grinding hot mix asphalt.

8-08.3 Construction Requirements
The first sentence in the first paragraph is revised to read:

The equipment shall have a rotary type cutting head or series of cutting heads capable of grinding one or more recesses in the hot mix asphalt as detailed in the Standard Plans.

The third sentence in the third paragraph is revised to read:

All cuttings and other debris shall become the property of the Contractor and be disposed of outside the project limits.

SECTION 8-09, RAISED PAVEMENT MARKERS
April 3, 2006

8-09.3(5) Recessed Pavement Marker
This section is revised to read:

Construct recesses for pavement markers by grinding the pavement in accordance with the dimensions shown in the Standard Plans. This work shall include cleanup and disposal of cuttings and other resultant debris. Prepare the surface in accordance with Section 8-09.3(1). Install Type 2 markers in the recess in accordance with the Standard Plans and Section 8-09.3(4).

SECTION 8-11, GUARDRAIL
April 2, 2007

8-11.3(1)A Erection of Posts
The second sentence of the second paragraph is revised to read:

The length of the posts for beam guardrail with long posts shall be as specified in the Plans.

8-11.3(1)C Erection of Rail
The first paragraph is supplemented with the following:

Except in Weathering Steel Beam Guardrail, all holes shall be painted with 2 coats of galvanizing repair paint Formula A-9-73 meeting the requirements of Section 9-08.2.

8-11.3(4) Removing Guardrail
This section including title is revised to read:

8-11.3(4) Removing Guardrail and Guardrail Anchor

Removal of the various types of guardrail shall include removal of the rail, cable elements, hardware, and posts, including transition sections, expansion sections and terminal sections . Removal of the various types of guardrail anchors shall include removal of the anchor assembly in its entirety, including concrete bases, rebar, and steel tubes and any other appurtenances in the anchor assembly. All holes resulting from the removal of the guardrail posts and anchors shall be backfilled with granular material in layers no more than 6-inches thick and compacted to a density similar to that of the adjacent material. The removed guardrail items shall become the property of the Contractor.

8-11.3(5) Raising Guardrail

This section is revised to read:

For raising guardrail anchors and raising guardrail terminals, the existing guardrail posts shall be raised to attain the guardrail height shown in the Plans, measured from the top of the rail to the finished shoulder surface. The material around each post shall be tamped to prevent settlement of the raised post.

For raising all other guardrail, the existing guardrail posts shall not be raised to attain the new mounting height. The existing rail elements and blocks shall be removed from the guardrail post. The Contractor shall field drill new 3/4" diameter holes in the existing posts to accommodate the 5/8" diameter button head bolts. When existing guardrail posts are galvanized steel, the new drill holes shall be painted with two coats of galvanizing repair paint, Formula A-9-73, meeting the requirements of Section 9-08.2. The Contractor shall then reinstall the guardrail block and rail element at the new mounting height shown in the Plans, measured from the top of the rail to the finished shoulder surface. The new position of the top of the block shall not be more than four inches above the top of the guardrail post.

The Contractor shall remove and replace any existing guardrail posts and blocks that are not suited for re-use, as staked by the Engineer. The void caused by the removal of the post shall be backfilled and compacted. The Contractor shall then furnish and install a new guardrail post to provide the necessary mounting height.

8-11.4 Measurement

The first paragraph is revised to read:

Measurement of beam guardrail and beam guardrail with long posts will be by the linear foot measured along the line of the completed guardrail, including expansion section, and will also include the end section for F connections.

The last sentence of the last paragraph is revised to read:

This will include transition sections, expansion sections, anchors, and terminal sections, and replacement of any hardware that is damaged or missing but is required to provide a complete installation.

This section is supplemented with the following:

Measurement of beam guardrail post used for raising guardrail will be per each.

Measurement of beam guardrail blocks used for raising guardrail will be per each.

8-11.5 Payment

This section is supplemented with the following, to be inserted after "Beam Guardrail Type 1-____ Ft. Long Post", per linear foot.:

"Beam Guardrail Type 31-____ Ft. Long Post", per linear foot.

The paragraph following "Weathering St. Beam Guardrail Type ____", per linear foot, is revised to read:

The unit contract price per linear foot for "Beam Guardrail Type____", "Beam Guardrail Type 1-____ Ft. Long Post", "Beam Guardrail Type 31-____ Ft. Long Post", or "Weathering St. Beam Guardrail Type ____" shall include all CRT posts, additional rail elements when nested rail is required, and connection to concrete masonry structures.

This section is supplemented with the following, to be inserted after "Raising Existing Beam Guardrail", per linear foot:

The unit contract price per linear foot for "Raising Existing Beam Guardrail", per linear foot shall be full pay for raising existing posts, compacting existing material, field drilling existing posts, raising guardrail and blocks, furnishing and installing new bolts, painting galvanized steel posts with galvanizing paint, and replacing any hardware that is damaged or missing but is required to provide a complete installation.

This section is supplemented with the following:

"Beam Guardrail Post", per each.
The unit contract price per each for "Beam Guardrail Post" shall include furnishing and installing the new post, removal and disposal of the existing post, and backfilling and compacting the void created by the post removal.

"Beam Guardrail Block", per each.
The unit contract price per each for "Beam Guardrail Block" shall include furnishing and installing the new block, and removal and disposal of the existing block.

SECTION 8-14, CEMENT CONCRETE SIDEWALKS
April 2, 2007

8-14.2 Materials

The second paragraph is deleted.

8-14.3 Construction Requirements

This section is supplemented with the following new paragraph:

The concrete in the sidewalks shall be air entrained concrete Class 3000 in accordance with the requirements of Section 6-02.

8-14.5 Payment

In the paragraph following "Cement Conc. Sidewalk Ramp Type ___", per each, the second sentence is revised to read:

Otherwise, the Contractor shall make all excavations including haul and disposal, regardless of the depth required for constructing the sidewalk to the lines and grades shown, and shall include all costs thereof in the unit contract price per square yard for "Cement Conc. Sidewalk.", "Cement Conc. Sidewalk with Raised Edge", "Monolithic Cement Conc. Curb and Sidewalk", or "Cement Conc. Sidewalk Ramp Type ___".

SECTION 8-16, CONCRETE SLOPE PROTECTION
August 7, 2006

8-16.2 Materials
The material "Concrete Class 3000" and referenced section "6-02" are revised to read:

Commercial Concrete	6-02.3(2)B

8-16.3(3) Poured in Place Cement Concrete
In the second paragraph, the words "Class 3000 cement" are revised to read "commercial".

SECTION 8-20, ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, AND ELECTRICAL
December 4, 2006

8-20.3(2) Excavating and Backfilling
The third paragraph is revised to read:

The excavations shall be backfilled in conformance with the requirements of Section 2-09.3(1)E, Structure Excavation.

8-20.3(4) Foundations
The second paragraph is revised to read:

The bottom of concrete foundations shall rest on firm ground. If the portion of the foundation beneath the existing ground line is formed or cased instead of being cast against the existing soil forming the sides of the excavation, then all gaps between the existing soil and the completed foundation shall be backfilled and compacted in accordance with Section 2-09.3(1)E.

The thirteenth paragraph is revised to read:

Both forms and ground which will be in contact with the concrete shall be thoroughly moistened before placing concrete; however, excess water in the foundation excavation will not be permitted. Foundations shall have set at least 72 hours prior to the removal of the forms. All forms shall be removed, except when the Plans or Special Provisions specifically allow or require the forms or casing to remain.

8-20.3(9) Bonding, Grounding
The first, second, and fourth paragraphs are revised to read:

All metallic appurtenances containing electrical conductors (luminaires, light standards, cabinets, metallic conduit, etc.) shall be made mechanically and electrically secure to form continuous systems, that shall be effectively grounded.

Where conduit is installed, the installation shall include an equipment ground conductor, in addition to the conductors noted in the contract. Bonding jumpers and equipment grounding conductors shall be installed in accordance with Section 9-29.3 and NEC. Where existing conduits are used for the installation of new circuits, an equipment-grounding conductor shall be installed unless an existing equipment ground conductor, which is appropriate for the largest circuit, is already present in the existing raceway. The equipment ground conductor between the isolation switch and the sign lighter fixtures shall be a minimum of a 14 AWG stranded copper conductor. Where parallel circuits are enclosed in a common conduit, the equipment-grounding conductor shall be sized by the largest overcurrent device serving any circuit contained within the conduit.

Supplemental grounding shall be provided at light standards, signal standards, cantilever and sign bridge structures. Steel sign posts which support signs with sign lighting or flashing beacons shall also have supplemental grounding. The supplemental ground conductor shall be connected to the foundation rebar (all rebar crossings shall be wire tied) by means of a grounding connector listed for use in concrete, and lead up directly adjacent to a conduit installed within the foundation. The free end of the conductor shall be terminated to the ground terminal, with an approved clamp, within the pole. If no ground terminal is provided, bond to standard or post. Three feet of slack shall be provided inside the standard. Where a concrete and rebar foundation is not used the supplemental ground shall be a grounding electrode placed in the hole next to the post prior to back fill. For light standards, signal standards, cantilever and sign bridge structures the supplemental grounding conductor shall be a non-insulated 4 AWG stranded copper conductor. For steel sign posts which support signs with sign lighting or flashing beacons the supplemental grounding conductor shall be a non-insulated 6 AWG stranded copper conductor.

8-20.3(14)E Signal Standards

The second paragraph is revised to read:

Signal standards shall not be erected on concrete foundations until the foundations have attained 2400 psi or 14 days after concrete placement. Signal standards without mast arms may be erected after 72 hours. Type IV and V strain pole standards may be erected but the messenger cable (span wire) shall not be placed until the foundation has attained 2400 psi or 14 days after concrete placement.

SECTION 8-21, PERMANENT SIGNING
January 3, 2006

8-21.3(9)F Bases

The second paragraph is revised to read:

The excavation and backfill shall be in conformance with the requirements of Section 2-09.3(1)E.

The fifth paragraph is revised to read:

The bottom of concrete foundations shall rest on firm ground. If the portion of the foundation beneath the existing ground line is formed or cased instead of being cast against the existing soil forming the sides of the excavation, then all gaps between the existing soil and the completed foundation shall be backfilled and compacted in accordance with Section 2-09.3(1)E.

The fourteenth paragraph is revised to read:

Both forms and ground which will be in contact with the concrete shall be thoroughly moistened before placing concrete; however, excess water in the foundation excavation will not be permitted. Forms shall not be removed until the concrete has set at least three days. All forms shall be removed, except when the Plans or Special Provisions specifically allow or require the forms or casing to remain.

SECTION 8-22, PAVEMENT MARKING
August 6, 2007

8-22.1 Description

This section is revised to read:

This work consists of furnishing, installing, and removing pavement markings upon the roadway surface in accordance with the Plans, Standard Plans, the FHWA publication *Standard Alphabet for Highway Signs and Pavement Markings* and these Specifications, at locations shown in the Contract or as ordered by the Engineer in accordance with Section 1-04.4.

Pavement Markings may be either Longitudinal (long) Line Markings or Transverse Markings. Longitudinal line markings are generally placed parallel and adjacent to the flow of traffic. Transverse markings are generally placed perpendicular and across the flow of traffic. Word and symbol markings are classified as transverse markings. Traffic letters used in word messages shall be 8-feet high with the exception of the "R" in the railroad crossing symbol which shall be as shown in the Standard Plans.

8-22.2 Materials

This section is revised to read:

Material for pavement marking shall be paint or plastic as noted in the bid item meeting the requirements of Section 9-34. Glass beads for paint shall meet the requirements of Section 9-34.4. Glass beads for plastic shall be as recommended by the material manufacturer.

8-22.3(2) Preparation of Roadway Surfaces

The following new sentence is inserted after the first sentence in the second paragraph:

The temperature requirement may be superseded by the material manufacturers written installation instructions.

The last sentence in the third paragraph is revised to read:

These cure periods may be reduced if the manufacturer performs a successful bond test and approves the reduction of the pavement cure period.

8-22.3(3) Marking Application

This section is revised to read:

Marking colors

Lane line and right edge line shall be white in color. Center line and left edge line shall be yellow in color. Transverse markings shall be white, except as otherwise noted in the *Standard Plans*.

Line Patterns

Solid line – a continuous line without gaps.

Broken line – a line consisting of solid line segments separated by gaps.

Dotted line – a broken line with noticeably shorter line segments separated by noticeably shorter gaps.

Line Surfaces

Flat Lines – Pavement marking lines with a flat surface.

Profiled Marking – A profiled pavement marking is a marking that consists of a base line thickness and a profiled thickness which is a portion of the pavement marking line that is applied at a greater thickness than the base line thickness. Profiles shall be applied using the extruded method in the same application as the base line. The profiles may be slightly rounded provided the minimum profile thickness is provided for the length of the profile. See the *Standard Plans* for the construction details.

Embossed Plastic Line – Embossed plastic lines consist of a flat line with transverse grooves. An embossed plastic line may also have profiles. See the *Standard Plans* for the construction details.

Line Applications

Surface line – a line applied directly to the pavement surface.

Grooved Line – A line constructed by grinding or saw cutting a groove into the pavement surface and spraying, extruding or gluing pavement marking material into the groove. The groove depth is dependent upon the material used, the pavement surface and location. See the project Plans and Special Provisions.

Two applications of paint will be required to complete all paint markings. The second application of paint shall be squarely on top of the first pass. The time period between paint applications will vary depending on the type of pavement and paint (low VOC waterborne, high VOC solvent, or low VOC solvent) as follows:

Pavement Type	Paint Type	Time Period
Bituminous Surface Treatment	Low VOC Waterborne	4 hours min., 48 hours max.
Hot Mix Asphalt Pavement	Low VOC Waterborne	4 hours min., 30 days max.
Cement Concrete Pavement	Low VOC Waterborne	4 hours min., 30 days max.
Bituminous Surface Treatment	High and Low VOC Solvent	40 min. min., 48 hrs. max.
Hot Mix Asphalt Pavement	High and Low VOC Solvent	40 min. min.,

		30 days max.
Cement Concrete Pavement	High and Low VOC Solvent	40 min. min., 30 days max.

Centerlines on two lane highways with broken line patterns, paint or plastic, shall be applied in the increasing mile post direction so they are in cycle with existing broken line patterns at the beginning of the project. Broken line patterns applied to multi-lane or divided roadways shall be applied in cycle in the direction of travel.

Where paint is applied on centerline on two-way roads with bituminous surface treatment or centerline rumble strips, the second paint application shall be applied in the opposite (decreasing mile post) direction as the first application (increasing mile post) direction. This will require minor broken line pattern corrections for curves on the second application.

Application Thickness

Pavement markings shall be applied at the following base line thickness measured above the pavement surface or above the groove bottom for grooved markings in thousandths of an inch (mils):

Marking Material Application		HMA	PCC	BST
Paint-first coat	spray	10	10	10
Paint- second coat	spray	15	15	15
Type A - flat/transverse & symbols	extruded	125	125	125
Type A - flat/long line & symbols	spray	90	90	120
Type A - with profiles	extruded	90	90	120
Type A - embossed	extruded	160	160	160
Type A - embossed with profiles	extruded	160	160	160
Type A – grooved/flat/long line	extruded	230	230	230
Type B - flat/transverse & symbols	heat fused	125	125	125
Type C-2 - flat/transverse & symbols	adhesive	90	90	NA
Type C-1 & 2 - flat/long line	adhesive	60	60	NA
Type C-1 - grooved/flat/long line	adhesive	60	60	NA
Type D - flat/transverse & symbols	spray	120	120	120
Type D - flat/transverse & symbols	extruded	120	120	120
Type D - flat/long line	spray	90	90	120
Type D - flat/long line	extruded	90	90	120
Type D - profiled/long line	extruded	90	90	120
Type D – grooved/flat/long line	extruded	230	230	230

Liquid pavement marking material yield per gallon depending on thickness shall not exceed the following:

Mils thickness	Feet of 4" line/gallon	Square feet/gallon
10	483	161

15	322	108
30	161	54
40	125	42
45	107	36
60	81	27
90	54	18
90 with profiles	30	10
120	40	13
120 with profiles	26	9
230	21	7

Solid pavement marking material (Type A) yield per 50 pound bag shall not exceed the following:

Mils thickness	Feet of 4" line/50# bag	Square feet/50# bag
30 - flat	358	120
45 - flat	240	80
60 - flat	179	60
90 - flat	120	40
90 - flat with profiles	67	23
120 - flat	90	30
120 - flat with profiles	58	20
125 - embossed	86	29
125 - embossed with profiles	58	20
230- flat grooved	47	15

All grooved plastic lines shall be applied into a groove cut or ground into the pavement. For Type A or D material the groove shall be cut or ground with equipment to produce a smooth square groove 4-inches wide. For Type C-1 material the groove shall be cut with equipment to produce a smooth bottom square groove with a width in accordance with the material manufacturer's recommendation. The groove depth for Type C-1 material shall be 100 mils, plus or minus 10 mils. The groove depth for Type A or D material shall be as shown in the Plans. After grinding, clean the groove by a method approved by Engineer. Immediately before placing the marking material clean the groove with high pressure air.

Section 8-22.3 is supplemented with the following new sub-section.

8-22.3(3)A Glass beads

Top dress glass beads shall be applied to all spray and extruded pavement marking material. Glass beads shall be applied by a bead dispenser immediately following the pavement marking material application. Glass bead dispensers shall apply the glass beads in a manner such that the beads appear uniform on the entire pavement marking surface with 50 to 60% embedment. Hand casting of beads will not be allowed.

Glass beads shall be applied to 10 or 15 mil thick paint at a minimum application rate of 7 pounds per gallon of paint. For plastic pavement markings, glass beads shall be applied at the rate recommended by the marking material manufacturer.

When two or more spray applications are required to meet thickness requirements for Type A and Type D materials, top dressing with glass beads is only allowed on the last application. The cure period between successive applications shall be in accordance with the manufacturer's recommendations. Any loose beads, dirt or other debris shall be swept or blown off the line prior to application of each successive application. Successive applications shall be applied squarely on top of the preceding application.

8-22.3(5) Installation Instructions

This section including title is revised to read:

8-22.3(5) Plastic Installation Instructions

Installation instructions for plastic markings shall be provided for the Engineer. All materials including glass beads shall be installed according to the manufacturer's recommendations. A manufacturer's technical representative shall be present at the initial installation of plastic material to approve the installation procedure or the material manufacturer shall certify that the Contractor will install the plastic material in accordance with their recommended procedure.

8-22.4 Measurement

This section is revised to read:

Center line, center line with no pass line, double center line, double lane line, edge line, solid lane line, dotted extension line, lane line, reversible lane line, and two-way left turn center line will be measured by the completed linear foot as "Paint Line", "Plastic Line", "Embossed Plastic Line", "Profiled Plastic Line", "Profiled Embossed Plastic Line" or Grooved Plastic Line".

The measurement for "Paint Line" will be based on a marking system capable of simultaneous application of three 4-inch lines with two 4-inch spaces. No deduction will be made for the unmarked area when the marking includes a broken line such as center line, dotted extension line, center line with no-pass line, lane line, reversible lane line, or two-way left turn center line. No additional measurement will be made when more than one line can be installed on a single pass such as center line with no-pass line, double center line, double lane line, reversible lane line, or two-way left turn center line.

The measurement for "Plastic Line", "Embossed Plastic Line", "Profiled Plastic Line", "Profiled Embossed Plastic Line" or "Grooved Plastic Line" will be based on the total length of each 4-inch wide plastic line installed. No deduction will be made for the unmarked area when the marking includes a broken line such as, center line, dotted extension line, center line with no-pass line, lane line, reversible lane line, or two-way left turn center line.

The measurement for "Painted Wide Lane Line", "Plastic Wide Lane Line", "Profiled Plastic Wide Lane Line", "Painted Wide Line", "Plastic Wide Line", "Painted Barrier Center Line", "Plastic Barrier Center Line", "Painted Stop Line", or "Plastic Stop Line", will be based on the total length of each painted, plastic or profiled plastic line installed. No deduction will be made for the unmarked area when the marking includes a broken line such as, wide broken lane line, drop lane line, or wide dotted lane line. The

measurement for double wide lane line will be based on the total length of each wide lane line installed.

No additional measurement for payment will be made for the required second application of paint. No additional measurement for payment will be made for additional applications required to meet thickness requirements for plastic markings.

Diagonal and chevron-shaped lines used to delineate medians, gore areas, and parking stalls are constructed of painted or plastic 4 inch or 8 inch lines in the color and pattern shown in the *Standard Plans*. These lines will be measured as "Painted Line", "Plastic Line", "Painted Wide Line" or "Plastic Wide Line" by the linear foot of line installed. Crosswalk line will be measured by the square foot of marking installed.

Traffic arrows, traffic letters, access parking space symbols, HOV symbols, railroad crossing symbols, drainage markings, bicycle lane symbols, aerial surveillance full, and 1/2 markers, yield line symbols, yield ahead symbols, and speed bump symbols will be measured per each. Type 1 through 6 traffic arrows will be measured as one unit each, regardless of the number of arrow heads.

Removal of lines, 4-inches, 8-inches, 18 inches and 20-inches in width will be measured by the linear foot, with no deduction being made for the unmarked area when the marking includes a gap.

Removal of traffic arrows, traffic letters, access parking space symbol, HOV lane symbol, railroad crossing symbol, bicycle lane symbols, drainage markings, aerial surveillance full and 1/2 markers, yield line symbol, yield ahead symbol, and speed bump symbol will be measured per each. Removal of crosswalk lines will be measured by the square foot of lines removed.

8-22.5 Payment

This section is revised to read:

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

"Paint Line", per linear foot.
"Plastic Line", per linear foot.
"Embossed Plastic Line", per linear foot.
"Profiled Plastic Line", per linear foot.
"Profiled Embossed Plastic Line", per linear foot.
"Grooved Plastic Line", per lineal foot.
"Painted Wide Lane Line", per linear foot.
"Plastic Wide Lane Line", per linear foot.
"Profiled Plastic Wide Lane Line", per linear foot.
"Painted Wide Line", per linear foot.
"Plastic Wide Line", per linear foot.
"Painted Barrier Center Line", per linear foot.
"Plastic Barrier Center Line", per linear foot.
"Painted Stop Line", per linear foot.
"Plastic Stop Line", per linear foot.
"Painted Crosswalk Line", per square foot.
"Plastic Crosswalk Line", per square foot.

"Painted Traffic Arrow", per each.
"Plastic Traffic Arrow", per each.
"Painted Traffic Letter", per each.
"Plastic Traffic Letter", per each.
"Painted Access Parking Space Symbol", per each.
"Plastic Access Parking Space Symbol", per each.
"Painted Railroad Crossing Symbol", per each.
"Plastic Railroad Crossing Symbol", per each.
"Painted Bicycle Lane Symbol", per each.
"Plastic Bicycle Lane Symbol", per each.
"Painted Drainage Marking", per each.
"Plastic Drainage Marking", per each.
"Painted Aerial Surveillance Full Marker", per each.
"Plastic Aerial Surveillance Full Marker", per each.
"Painted Aerial Surveillance $^1/_2$ Marker", per each.
"Plastic Aerial Surveillance $^1/_2$ Marker", per each.
"Painted Access Parking Space Symbol with Background", per each.
"Plastic Access Parking Space Symbol with Background", per each.
"Painted HOV Lane Symbol", per each.
"Plastic HOV Lane Symbol", per each.
"Painted Yield Line Symbol", per each.
"Plastic Yield Line Symbol", per each.
"Painted Yield Ahead Symbol", per each.
"Plastic Yield Ahead Symbol", per each.
"Painted Speed Bump Symbol", per each.
"Plastic Speed Bump Symbol", per each.
"Removing Paint Line", per linear foot.
"Removing Plastic Line", per linear foot.
"Removing Painted Crosswalk Line", per square foot.
"Removing Plastic Crosswalk Line", per square foot.
"Removing Painted Traffic Marking", per each .
"Removing Plastic Traffic Marking", per each .

SECTION 9-00, DEFINITIONS AND TESTS
January 3, 2006

9-00.8 Sand Equivalent

The second paragraph is revised to read:

For acceptance, there must be a clear line of demarcation. If no clear line of demarcation has formed at the end of a 30 minute sedimentation period, the material will be considered as failing to meet the minimum specified sand equivalent.

SECTION 9-01, PORTLAND CEMENT
August 6, 2007

9-01.2(1) Portland Cement

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

The total amount of processing additions used shall not exceed 1% of the weight of portland cement clinker and up to 3.0% cement kiln dust by mass of the cement as long as it complies with the requirements of ASTM C-465.

9-01.2(4) Blended Hydraulic Cement

The first sentence of the first paragraph is revised to read:

Blended hydraulic cement shall be either Type IP (MS), Type I (SM) (MS) or Type I (PM) (MS) cement conforming to AASHTO M 240, except that the content of alkalis shall not exceed 0.75 percent by weight calculated as Na_20 plus 0.658 K_20 and except that the content of Tricalcium aluminate (C_3A) shall not exceed 8 percent by weight calculated as $2.650Al_2O_3$ minus $1.692Fe_2O_3$, and meet the following additional requirements:

9-01.3 Tests and Acceptance

The below new paragraph is inserted to follow the first paragraph:

Cement producers, importers/distributors, and suppliers that certify Portland cement or blended cement shall participate in the Cement Acceptance Program as described in WSDOT Standard Practice QC 1.

SECTION 9-02, BITUMINOUS MATERIALS
August 6, 2007

9-02.1(2) Medium Curing (MC) Liquid Asphalt

This section including title is revised to read:

9-02.1(2) Vacant

9-02.1(3) Rapid Curing (RC) Liquid Asphalt

This section including title is revised to read:

9-02.1(3) Vacant

9-02.1(4) Asphalt Binders

This section including title is revised to read:

9-02.1(4) Performance Graded Asphalt Binder (PGAB)

PGAB meeting the requirements of AASHTO M 320 Table 1 of the grades specified in the contract shall be used in the production of HMA. The Direct Tension Test (AASHTO T 314) of M 320 is not a specification requirement.

9-02.1(4)A Performance Graded Asphalt Binder

This section including title is revised to read:

9-02.1(4)A Quality Control Plan

The Asphalt Supplier of PGAB shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 2 "Standard Practice for Asphalt Suppliers That Certify Performance Graded Asphalts". The Asphalt Supplier's QCP shall be submitted and approved by the WSDOT State Materials Laboratory. Any change to the QCP will require a new QCP to be submitted. The Asphalt Supplier of PGAB shall certify through the Bill of Lading that PGAB meets the specification requirements of the contract.

9-02.1(6)A Polymerized Cationic Emulsified Asphalt CRS-2P

This section is revised to read:

The asphalt CRS-2P shall be a polymerized cationic emulsified asphalt. The polymer shall be milled into the asphalt or emulsion during the manufacturing of the emulsion. The asphalt CRS-2P shall meet the following specifications:

	AASHTO Test Method	Specifications	
		Minimum	Maximum
Viscosity @122°F, SFS	T 59	100	400
Storage Stability 1 day %	T 59	---	1
Demulsibility 35 ml. 0.8% Dioctyl Sodium Sulfosuccinate	T 59	40	---
Particle Charge	T 59	positive	---
Sieve Test %	T 59	---	0.30
Distillation			
Oil distillate by vol. of emulsion %	T 59 note 1	0	3
Residue	T 59 note 1	65	---
Test on the Residue From Distillation			
Penetration @77°F	T 49	100	250
Torsional Recovery %	note 2	18	---
or			
Toughness/Tenacity in-lbs	note 3	50/25	---

note 1 Distillation modified to use 300 grams of emulsion heated to 350°F ± 9°F and maintained for 20 minutes.

note 2 The Torsional Recovery test shall be conducted according to the California Department of Transportation Test Method No. 332. The residue material for this test shall come from California Department of Transportation Test Method No. 331.

note 3 Benson method of toughness and tenacity; Scott tester, inch-pounds at 77°F, 20 in. per minute pull. Tension head $^{7}/_{8}$ in. diameter.

At the option of the supplier the Benson Toughness/Tenacity test can be used in lieu of Torsional Recovery based on type of modifier used. If the Benson Toughness/Tenacity method is used for acceptance the supplier must supply all test data verifying specification conformance.

9-02.1(9) Coal Tar Pitch Emulsion

This section including title is revised to read:

9-02.1(9) Coal Tar Pitch Emulsion, Cationic Asphalt Emulsion Blend Sealer

Bituminous asphalt seal coat material shall be a blend of 20 percent Coal Tar Pitch Emulsion, and 80 percent Cationic Asphalt Emulsion, together with specified additives, minerals and sand aggregate.

The Coal Tar Pitch Emulsion component shall conform to all requirements of Federal Specification RP-355E. The emulsion shall be prepared from straight run, high temperature, coke oven tar meeting the requirements of Federal Specification RC 1424.

The Cationic Emulsified Asphalt component shall be CSS-1h grade emulsion, meeting the requirements of Section 9-02.1(6), Cationic Emulsified Asphalt.

The blended emulsion shall be homogeneous and shall show no separation or coagulation of components that cannot be overcome by moderate stirring. It shall be capable of being applied completely by squeegee, brush, or other approved mechanical methods to the surface of bituminous pavements when spread at the specified rates.

SECTION 9-03, AGGREGATES
August 6, 2007

9-03.1(1) General Requirements

The below new paragraph is inserted to follow the first paragraph:

The material from which concrete aggregate is manufactured shall meet the following test requirements:

Los Angeles Wear, 500 Rev.	35 max.
Degradation Factor (Structural and Paving Concrete)	30 min.
Degradation Factor (Other as defined in 6-02.3(2)B	20 min.

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

The Contractor may submit an alternative mitigating measure through the Project Engineer to the State Materials Laboratory for approval along with evidence in the form of test results from ASTM C 1567 that demonstrate the mitigation when used with the proposed aggregate controls expansion to 0.20 percent or less.

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

The Contractor shall submit evidence in the form of test results from ASTM C 1567 through the Project Engineer to the State Materials Laboratory that demonstrate the proposed mitigation when used with the aggregates proposed will control the potential expansion to 0.20 percent or less before the aggregate source may be used in concrete.

9-03.1(4)A Deleterious Substances

The reference to "AASHTO PT 61" in the second paragraph is revised to "AASHTO TP 61".

9-03.1(4)B Wear in Los Angeles Machine

This section including title is revised to read:

9-03.1(4)B Vacant

9-03.1(4)C Grading

The AASHTO Grading Chart is revised to include AASHTO Grading No. 4.

Passing	AASHTO Grading No. 467		AASHTO Grading No. 4		AASHTO Grading No. 57		AASHTO Grading No. 67		AASHTO Grading No. 7		AASHTO Grading No. 8	
Sieve Size	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2" square	100	—	100	--	—	—	—	—	—	—	—	—
1 1/2 square	95	100	90	100	100	—	—	—	—	—	—	—
1 square	—	—	20	55	95	100	100	—	—	—	—	—
3/4 square	35	70	0	15	—	—	90	100	100	—	—	—
1/2 square	—	—	--	--	25	60	—	—	90	100	100	—
3/8 square	10	30	0	5	—	—	20	55	40	70	85	100
U.S. No. 4	0	5	--	--	0	10	0	10	0	15	10	30
U.S. No. 8	—	—	--	--	0	5	0	5	0	5	0	10
U.S. No. 16	—	—	--	--	—	—	—	—	—	—	0	5

9-03.4(2) Grading and Quality

The chart is revised to read:

	Crushed Screening Percent Passing					
	3/4"-1/2"	5/8"-US No. 4	1/2"-US No. 4	3/8"-US No. 4	3/8"- US No. 10	US No. 4-0
1"square	100	---	---		---	---
3/4" square	95-100	100	---		---	---
5/8" square	---	95-100	100		---	---
1/2" square	0-20	---	97-100	100	100	---
3/8" square	0-5	---	---	70-90	95-100	100
1/4" square			0-15			
U.S. No. 4	---	0-10	0-5	0-5	0-35	76-100
U.S. No 8				0-3		
U.S. No. 10	---	0-3	0-2		0-10	30-60
U.S. No. 200	1.5	1.5	1.5	1.5	1.5	0-10.0
% fracture, by weight, min.	90	90	90	90	90	90

The reference to "AASHTO PT61" in the fourth paragraph is revised to "AASHTO TP61".

9-03.8(2) HMA Test Requirements

In the first paragraph, item 2. and the associated graph are revised to read:

2. The fracture requirements for the combined coarse aggregate shall apply to the material retained on the U.S. No. 4 sieve and above, when tested in accordance with FOP for AASHTO TP 61.

ESAL's (millions)	# Fractured Faces	% Fracture
< 10	1 or more	90
≥ 10	2 or more	90

9-03.9(3) Crushed Surfacing

The reference to "AASHTO PT 61" in the fourth paragraph is revised to "AASHTO TP 61".

9-03.11 Vacant

This section including title is revised to read:

9-03.11 Streambed Aggregates

Streambed aggregates shall be naturally occurring water rounded aggregates. Aggregates from quarries, ledge rock, and talus slopes are not acceptable for these applications. Streambed aggregates shall meet the following test requirements for quality:

Aggregate Property	Test Method	Requirement
Degradation Factor	WSDOT T 113	15 min.
Los Angeles Wear, 500 Rev.	AASHTO T 96	50% max.
Bulk Specific Gravity	AASHTO T 85	2.55 min.

Section 9-03.11 is supplemented with the following new sub-sections:

9-03.11(1) Streambed Sediment

Streambed sediment shall meet the following requirements for grading when placed in hauling vehicles for delivery to the project or during manufacture and placement into temporary stockpile. The exact point of acceptance will be determined by the Engineer.

Sieve Size	Percent Passing
2 1/2" square	100
2" square	65 – 95
1" square	50 – 85
U.S. No. 4	26 – 44
U.S. No. 40	16 max.
U.S. No. 200	5.0 – 9.0

All percentages are by mass.

The portion of sediment retained on U.S. No. 4 sieve shall not contain more than 0.2 percent wood waste.

9-03.11(2) Streambed Cobbles

Streambed cobbles shall be clean, naturally occurring water rounded gravel material. Streambed cobbles shall have uniform distribution of cobble sizes and conform to one or more of the following gradings as shown in the Plans:

Approximate Size[Note 1]	Percent Passing				
	4" Cobbles	6" Cobbles	8" Cobbles	10" Cobbles	12" Cobbles
12"					100
10"				100	
8"			100		70 max.
6"		100		70 max.	
5"			70 max.		40 max.
4"	100	70 max.		40 max.	
3"			40 max.		
2"		40 max.			
1 ½"	40 max.				
¾"	10 max.	10 max.	10 max.	10 max.	10 max.

The grading of the cobbles shall be determine by the Engineer by visual inspection of the load before it is dumped into place, or, if so ordered by the Engineer, by dumping individual loads on a flat surface and sorting and measuring the individual rocks contained in the load.

Note 1: Approximate size can be determined by taking the average dimension of the three axes of the rock; length, width, and thickness by use of the following calculation:

$$\frac{\text{Length} + \text{Width} + \text{Thickness}}{3} = \text{Approximate Size}$$

Length is the longest axis, width is the second longest axis, and thickness is the shortest axis.

9-03.11(3) Streambed Boulders

Streambed boulders shall be hard, sound and durable material, free from seams, cracks, and other defects tending to destroy its resistance to weather. Streambed Boulders shall be rounded to sub-angular in shape and the thickness axis shall be greater than 60% of the length axis [Note 1]. Streambed boulders sizes are approximately as follows, see Plans for sizes specified:

Rock Size	Approximate Size [Note 1]
One Man	12" - 18"
Two Man	18" - 28"
Three Man	28" - 36"
Four Man	36" - 48"
Five Man	48" - 54"
Six Man	54" - 60"

Note 1: Approximate size can be determined by taking the average dimension of the three axes of the rock; length, width, and thickness by use of the following calculation:

$$\frac{\text{Length} + \text{Width} + \text{Thickness}}{3} = \text{Approximate Size}$$

Length is the longest axis, width is the second longest axis, and thickness is the shortest axis.

9-03.11(4) Habitat Boulders

Habitat boulders shall be hard, sound and durable material, free from seams, cracks, and other defects tending to destroy its resistance to weather. Habitat Boulders shall be rounded to sub-angular in shape and the thickness axis shall be greater than 60% of the width axis and the length shall be 1.5 to 3 times the width axis [Note 1]. Habitat boulders sizes are approximately as follows, see Plans for sizes specified:

Rock Size	Approximate Size [Note 1]
Three Man	28" - 36"
Four Man	36" - 48"
Five Man	48" - 54"
Six Man	54" - 60"

Note 1: Approximate size can be determined by taking the average dimension of the three axes of the rock; length, width, and thickness by use of the following calculation:

$$\frac{\text{Length} + \text{Width} + \text{Thickness}}{3} = \text{Approximate Size}$$

Length is the longest axis, width is the second longest axis, and thickness is the shortest axis.

9-03.20 Test Methods for Aggregates

The test method for Percent of Fracture in Aggregates is revised from "AASHTO PT 61" to "AASHTO TP 61".

SECTION 9-05, DRAINAGE STRUCTURES, CULVERTS, AND CONDUITS
August 6, 2007

9-05.1(1) Concrete Drain Pipe

This section is revised to read:

Concrete drain pipe shall meet the requirements of ASTM C 118, heavy duty drainage pipe.

9-05.1(6) Corrugated Polyethylene Drainage Tubing Drain Pipe

This section including title is revised to read:

9-05.1(6) Corrugated Polyethylene Drain Pipe (up to 10-inch)

Corrugated polyethylene drain pipe shall meet the requirements of AASHTO M 252 type C (corrugated both inside and outside) or type S (corrugated outer wall and smooth inner liner). The maximum size pipe shall be 10 inches in diameter.

9-05.2(3) Perforated Bituminized Fiber Underdrain Pipe

This section including title is revised to read:

9-05.2(3) Vacant

9-05.1(7) Corrugated Polyethylene Drain Pipe

This section including title is revised to read:

9-05.1(7) Corrugated Polyethylene Drain Pipe (12-inch through 60-inch)

Corrugated polyethylene drain pipe, 12-inch through 60-inch -diameter maximum, shall meet the minimum requirements of AASHTO M 294 Type S or 12-inch through 24 inch diameter maximum shall meet the minimum requirements of AASHTO M 294 Type C.

9-05.2(7) Perforated Corrugated Polyethylene Drainage Tubing Underdrain Pipe

This section including title is revised to read:

9-05.2(7) Perforated Corrugated Polyethylene Underdrain Pipe (Up to 10-inch)

Perforated corrugated polyethylene underdrain pipe shall meet the requirements of AASHTO M252, Type CP or Type SP. Type CP shall be Type C pipe with Class 2 perforations and Type SP shall be Type S pipe with either Class 1 or Class 2 perforations. Additionally, Class 2 perforations shall be uniformly spaced along the length and circumference of the pipe. The maximum size pipe shall be 10-inch diameter.

9-05.2(8) Perforated Corrugated Polyethylene Underdrain Pipe

This section including title is revised to read:

9-05.2(8) Perforated Corrugated Polyethylene Underdrain Pipe (12-inch through 60-inch)

Perforated corrugated polyethylene underdrain pipe, 12-inch through 60-inch diameter maximum, shall meet the requirements of AASHTO M 294 Type CP or Type SP. Type CP shall be Type C pipe with Class 2 perforations and Type SP shall be Type S pipe with either Class 1 or Class 2 perforations. Additionally, Class 2 perforations shall be uniformly spaced along the length and circumference of the pipe.

9-05.3(1)A End Design and Joints

The second paragraph is revised to read:

The plane of the ends of the pipes shall be perpendicular to their longitudinal axes.

9-05.4(3) Protective Treatment

In Treatment 1 and 2, the reference to 9-05.4(6) is revised to read 9-05.4(5).

9-05.12(1) Solid Wall PVC Culvert Pipe, Solid Wall PVC Storm Sewer Pipe, and Solid Wall PVC Sanitary Sewer Pipe

The first paragraph is revised to read:

Solid wall PVC culvert pipe, solid wall PVC storm sewer pipe, and solid wall PVC sanitary sewer pipe and fittings shall be solid wall construction and shall conform to the following requirements:

For pipe sizes up to 15 inches: ASTM D 3034 SDR 35

For pipe sizes from 18 to 48 inches: ASTM F 679 using a minimum pipe stiffness of 115 psi in accordance with Table 1.

9-05.12(2) Profile Wall PVC Culvert Pipe, Profile Wall PVC Storm Sewer Pipe, and Profile Wall PVC Sanitary Sewer Pipe

The first paragraph is revised to read:

Profile wall PVC culvert pipe and profile wall PVC storm sewer pipe shall meet the requirements of ASTM F 794 Series 46, or ASTM F 1803. Profile wall PVC sanitary sewer pipe shall meet the requirements of ASTM F 794 Series 46, or ASTM F 1803. The maximum pipe diameter shall be as specified in the Qualified Products List.

The fifth paragraph is revised to read:

Fittings for profile wall PVC pipe shall meet the requirements of ASTM F 794 Series 46, or ASTM F 1803.

9-05.15 Metal Castings

This section is revised to read:

For all metal castings the producing foundry shall provide certification stating the country of origin, the material meets the required ASTM or AASHTO specification noted in the subsections below. The producing foundry shall detail all test results from physical testing to determine compliance to the specifications. The test reports shall include physical properties of the material from each heat and shall include tensile, yield, and elongation as specified in the appropriate ASTM or AASHTO specification. For AASHTO M 306, Section 8, Certification is deleted and replaced with the above certification and testing requirements.

Metal castings for drainage structures shall not be dipped, painted, welded, plugged, or repaired. Porosity in metal castings for drainage structures shall be considered a workmanship defect subject to rejection by the Engineer. Metal castings made from gray iron or ductile iron shall conform to the requirements of AASHTO M 306, and metal castings made from cast steel shall conform to the requirements of Section 9-06.8. All metal castings shall meet the proof load testing requirements of AASHTO M 306.

9-05.15(1) Manhole Ring and Cover

This section is revised to read:

Castings for manhole rings shall be gray iron or ductile iron and covers shall be ductile iron.

All covers shall be interchangeable within the dimensions shown in the Standard Plans. All mating surfaces shall be machine finished to ensure a nonrocking fit.

The inside vertical recessed face of the ring and the vertical outside edge of the cover shall be machined or manufactured to the following tolerances:

Ring	+3/32 inch to -3/32 inch
Cover	+3/32 inch to -3/32 inch

All manhole rings and covers shall be identified by the name or symbol of the producing foundry and country of casting origin. This identification shall be in a plainly visible location when the ring and cover are installed. Ductile iron shall be identified by the

following, "DUC" or "DI." The producing foundry and material identification shall be adjacent to each other and shall be minimum ½ inch to maximum 1inch high letters, recessed to be flush with the adjacent surfaces.

9-05.15(2) Metal Frame, Grate and Solid Metal Cover for Catch Basins or Inlets

The first and second paragraphs are revised to read:

Castings for metal frames for catch basins and inlets shall be cast steel, gray iron, or ductile iron, and as shown in the Standard Plans.

Castings for grates and solid metal covers for catch basins and inlets shall be cast steel or ductile iron and as shown in the Standard Plans. Additionally, leveling pads are allowed on grates and solid metal covers with a height not to exceed 1/8 inch. The producing foundry's name and material designation shall be embossed on the top of the grate. The material shall be identified by the following: "CS" for cast steel or "DUC" or "DI" for ductile iron and shall be located near the producing foundry's name.

9-05.15(3) Cast Metal Inlets

The first sentence is revised to read:

The castings for cast metal inlets shall be cast steel or ductile iron, and as shown in the Standard Plans.

9-05.19 Corrugated Polyethylene Culvert Pipe

The first paragraph is revised to read:

Corrugated polyethylene culvert pipe shall meet the requirements of AASHTO M 294 Type S or D for pipe 12-inch to 60-inch diameter with silt-tight joints.

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

A Manufacturer's Certificate of Compliance shall be required and shall accompany the materials delivered to the project.

9-05.20 Corrugated Polyethylene Storm Sewer Pipe

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

A Manufacturer's Certificate of Compliance shall be required and shall accompany the materials delivered to the project.

SECTION 9-06, STRUCTURAL STEEL AND RELATED MATERIALS
December 4, 2006

9-06.5(4) Anchor Bolts

The first and second paragraphs are revised to read:

Anchor bolts shall meet the requirements of ASTM F 1554 and, unless otherwise specified, shall be Grade 105 and shall conform to Supplemental Requirements S2, S3, and S4.

Nuts for ASTM F 1554 Grade 105 black anchor bolts shall conform to AASHTO M 291, Grade D or DH. Nuts for ASTM F 1554 Grade 105 galvanized bolts shall conform to

AASHTO M 291, Grade DH and shall conform to the lubrication requirements in Section 9-06.5(3). Nuts for ASTM F 1554 Grade 36 or 55 black or galvanized anchor bolts shall conform to AASHTO M 291, Grade A. Washers shall conform to ASTM F 436.

9-06.9 Gray Iron Castings

The AASHTO requirement is revised to read "AASHTO M 306".

SECTION 9-07, REINFORCING STEEL
August 6, 2007

9-07.2 Deformed Steel Bars

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

Deformed steel bars for concrete reinforcement shall conform to either AASHTO M 31 Grade 60, or ASTM A 706, except as otherwise noted. Steel reinforcing bar for the cast-in-place components of bridge structures (excluding sidewalks and barriers but including shafts and concrete piles), and for precast substructure components of bridge structures, shall conform to ASTM A 706 only.

9-07.5 Dowel Bars (For Cement Concrete Pavement)

This section is revised to read:

Dowel bars shall be plain steel bars of the dimensions shown in the Standard Plans. They shall conform to AASHTO M 31, Grade 60 or AASHTO M 255, Grade 60 and shall be coated in accordance with ASTM A 934. The thickness of the epoxy coating shall be 10 mils plus or minus 2 mils. In addition, the requirements of Section 9-07.3, Items 2, 3, 4, 5, 6, and 9 shall apply.

SECTION 9-08, PAINTS
April 2, 2007

9-08.2 Paint Formulation – General

In **Formula C-11-99 — Top Coat Single Component, Moisture Cured Polyurethane,** the federal standard for Color is revised to read:

Color: Match Federal Standard 595B

SECTION 9-09, TIMBER AND LUMBER
August 7, 2006

9-09.2(3) Inspection

This section is revised to read:

Timber and lumber requiring a grade stamp shall be marked with a certified lumber grade stamp provided by one of the following agencies:

West Coast Lumber Inspection Bureau (WCLIB)
Western Wood Products Association (WWPA)
Pacific Lumber Inspection Bureau (PLIB)
Any lumber grading bureau certified by the American Lumber Standards Committee

Timber and Lumber requiring a grading certificate shall have a certificate that was issued by either the grading bureau whose stamp is shown on the material, or by the lumber mill, which must be under the supervision of one of the grading bureaus listed above. The certificate shall include the following:

Name of the mill performing the grading
The grading rules being used
Name of the person doing the grading with current certification
Signature of a responsible mill official
Date the lumber was graded at the mill
Grade, dimensions, and quantity of the timber or lumber

For Structures:
All material delivered to the project shall bear a grade stamp and have a grading certificate. The grade stamp and grading certificate shall not constitute final acceptance of the material. The Engineer may reject any or all of the timber or lumber that does not comply with the specifications or has been damaged during shipping or upon delivery.

For Guardrail Posts and Blocks, Sign Posts, Mileposts, Sawed Fence Posts, and Mailbox Posts:
Material delivered to the project shall either bear a grade stamp on each piece or have a grading certificate. The grade stamp or grading certificate shall not constitute final acceptance of the material. The Engineer may reject any or all of the timber or lumber that does not comply with the specifications or has been damaged during shipping or upon delivery.

9-09.3(1) General Requirements

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

Unless otherwise specified in the contract, all timber and lumber shall be treated in accordance with Sections U1 and T1 of the latest edition of the AWPA standards.

SECTION 9-10, PILING
December 4, 2006

9-10.2(2) Reinforcement

This section is revised to read:

Reinforcement shall meet the requirements of Section 9-07.

SECTION 9-12, MASONRY UNITS
August 7, 2006

9-12.7 Precast Concrete Drywells

The third sentence is revised to read:

Each seepage port shall provide a minimum of 1 square inch and a maximum of 7 square inches for round openings and 15 square inches for rectangular openings.

SECTION 9-13, RIPRAP, QUARRY SPALLS, SLOPE PROTECTION, AND ROCK WALLS
April 2, 2007

9-13 Riprap, Quarry Spalls, Slope Protection, And Rock Walls

The requirements for Quality following the first paragraph are revised to read:

Aggregate Property	Test method	Requirement
Degradation Factor	WSDOT T 113	15 minimum
Los Angeles Wear, 500 Rev.	AASHTO T 96	50% maximum
Specific Gravity	AASHTO T 85	2.55 minimum

9-13.5(2) Poured Portland Cement Concrete Slope Protection

The first paragraph is revised to read:

Cement concrete for poured concrete slope protection shall be commercial concrete in conformance with Section 6-02.3(2)B.

SECTION 9-14, EROSION CONTROL AND ROADSIDE PLANTING
April 2, 2007

9-14.2 Seed

This section is revised to read:

Grasses, legumes, or cover crop seed of the type specified shall conform to the standards for "Certified" grade seed or better as outlined by the State of Washington Department of Agriculture "Rules for Seed Certification," latest edition. Seed shall be furnished in standard containers on which shall be shown the following information:

(1) Common and botanical names of seed,
(2) Lot number,
(3) Net weight,
(4) Pure live seed

All seed installers and vendors must have a business license issued by the Washington State Department of Licensing with a "seed dealer" endorsement. Upon request, the contractor shall furnish the Engineer with copies of the applicable licenses and endorsements.

Upon request, the Contractor shall furnish to the Engineer duplicate copies of a statement signed by the vendor certifying that each lot of seed has been tested by a recognized seed testing laboratory within six months before the date of delivery on the project. Seed which has become wet, moldy, or otherwise damaged in transit or storage will not be accepted.

9-14.4(1) Straw

This section is revised to read:

All straw material shall be in an air dried condition free of noxious weeds and other materials detrimental to plant life. Straw mulch so provided shall be suitable for spreading with mulch blower equipment.

9-14.4(3) Bark or Wood Chips

This section is supplemented with the following:

Sawdust shall not be used as mulch.

9-14.4(4) Sawdust

This section including title is revised to read:

9-14.4(4) Vacant

9-14.4(8) Compost

This section is revised to read:

Compost products shall be the result of the biological degradation and transformation of plant-derived materials under controlled conditions designed to promote aerobic decomposition. Compost shall be stable with regard to oxygen consumption and carbon dioxide generation. Compost shall be mature with regard to its suitability for serving as a soil amendment or an erosion control BMP as defined below. The compost shall have a moisture content that has no visible free water or dust produced when handling the material.

Compost production and quality shall comply with Chapter 173-350 WAC.

Compost products shall meet the following physical criteria:

1. Compost material shall be tested in accordance with Testing Methods for the Examination of Compost and Composting (TMECC) Test Method 02.02-B, "Sample Sieving for Aggregate Size Classification".

   Fine Compost shall meet the following:

	Min.	Max.
Percent passing 2"	100%	
Percent passing 1"	99%	100%
Percent passing 5/8"	90%	100%
Percent passing ¼"	75%	100%
Maximum particle length of 6 inches		

   Coarse Compost shall meet the following:

	Min.	Max.
Percent passing 3"	100%	
Percent passing 1"	90%	100%
Percent passing ¾"	70%	100%
Percent passing ¼"	40%	60%
Maximum particle length of 6 inches		

2. The pH shall be between 6.0 and 8.5 when tested in accordance with TMECC 04.11-A, "1:5 Slurry pH".

3. Manufactured inert material (plastic, concrete, ceramics, metal, etc.) shall be less than 1.0 percent by weight as determined by TMECC 03.08-A "percent dry weight basis".

4. Minimum organic matter shall be 40 percent dry weight basis as determined by TMECC 05.07A, "Loss-On-Ignition Organic Matter Method".

5. Soluble salt contents shall be less than 4.0mmhos/cm tested in accordance with TMECC 04.10-A, "1:5 Slurry Method, Mass Basis".

6. Maturity shall be greater than 80% in accordance with TMECC 05.05-A, "Germination and Vigor".

7. Stability shall be 7 or below in accordance with TMECC 05.08-B, Carbon Dioxide Evolution Rate"

8. The compost product must originate a minimum of 65 percent by volume from recycled plant waste as defined in WAC 173-350 as "Type 1 Feedstocks." A maximum of 35 percent by volume of other approved organic waste and/or biosolids may be substituted for recycled plant waste. The supplier shall provide written verification of feedstock sources

9. The Engineer may also evaluate compost for maturity using the Solvita Compost Maturity Test. Fine Compost shall score a number 6 or above on the Solvita Compost Maturity Test. Coarse Compost shall score a 5 or above on the Solvita Compost Maturity Test.

The compost supplier will test all compost products within 90 calendar days prior to application. Samples will be taken using the Seal of Testing Assurance (STA) sample collection protocol. (The sample collection protocol can be obtained from the U.S. Composting Council, 4250 Veterans Memorial Highway, Suite 275, Holbrook, NY 11741

Phone: 631-737-4931, www.compostingcouncil.org). The sample shall be sent to an independent STA Program approved lab. The compost supplier will pay for the test. A copy of the approved independent STA Program laboratory test report shall be submitted to the Contracting Agency prior to initial application of the compost. Seven days prior to application, the Contractor shall submit a sample of each type compost to be used on the project to the Engineer.

Compost not conforming to the above requirements or taken from a source other than those tested and accepted shall be immediately removed from the project and replaced at no cost to the Contracting Agency.

The Contractor shall either select a compost supplier from the Qualified Products List, or submit the following information to the Engineer for approval:

1. A Request for Approval of Material Source.

2. A copy of the Solid Waste Handling Permit issued to the supplier by the Jurisdictional Health Department as per WAC 173-350 (Minimum Functional Standards for Solid Waste Handling).

3. The supplier shall verify in writing, and provide lab analyses that the material complies with the processes, testing, and standards specified in WAC 173-350 and these specifications. An independent STA Program certified laboratory shall perform the analysis.

4. A list of the feedstock by percentage present in the final compost product.

5. A copy of the producer's Seal of Testing Assurance certification as issued by the U.S. Composting Council.

Acceptance will be based upon a satisfactory Test Report from an independent STA program certified laboratory and the sample(s) submitted to the Engineer.

9-14.5(2) Erosion Control Blanket

Footnote 1 is revised to read:

[1]UV stability shall be 80% strength retained min., after 500 hours in a xenon arc device as per ASTM D4355.

9-14.5(5) Wattles

This section is revised to read:

Wattles shall consist of cylinders of biodegradable plant material such as straw, coir, compost, or wood shavings encased within biodegradable or photodegradable netting. Wattles shall be at least 5 inches in diameter, unless otherwise specified. Encasing material shall be clean, evenly woven, and free of encrusted concrete or other contaminating materials such as preservatives. Encasing material shall be free from cuts, tears, or weak places and shall have a lifespan greater than 6 months.

Compost filler shall meet the material requirements as specified in Section 9-14.4(8), and shall be Coarse Compost.

9-14.5(6) Compost Sock

This section is revised to read:

Biodegradable fabric for compost sock and compost wattle shall be clean, evenly woven, and free of encrusted concrete or other contaminating materials and shall be free from cuts, tears, broken or missing yarns and thin, open, or weak places. Fabric for compost sock shall consist of extra heavy weight biodegradable fiber which has not been treated with any type of preservative. Compost for compost socks shall meet the material requirements as specified in Section 9-14.4(8), and shall be Coarse Compost

Wood stakes for compost sock and wattles shall be made from Douglas-fir, hemlock, or pine species. Wood stakes shall be 2 inch by 2 inch nominal dimension and 36 inches in length, unless otherwise indicated in the Plans.

Section 9-14.5 is supplemented with the following new section.

9-14.5(7) Coir Log

Coir log: Logs shall be made of 100% durable coconut (coir) fiber uniformly compacted within an outer netting. Log segments shall have a maximum length of 20 feet, with a minimum diameter as shown in the Plans. Logs shall have a density of 7 lbs/cf or greater.

Coir logs shall be manufactured with a woven wrapping netting made of bristle coir twine with minimum strength of 80 lbs tensile strength. The netting shall have nominal 2 inch by 2 inch openings.

Stakes shall conform to the requirements of Section 9-09. Cedar wood stakes shall have a notch to secure the rope ties. Rope ties shall be one-quarter inch diameter commercially available hemp rope.

9-14.6(1) Description

This section is revised to read:

Bareroot plants are grown in the ground and harvested without soil or growing medium around their roots.

Container plants are grown in pots or flats that prevent root growth beyond the sides and bottom of the container.

Balled and burlapped plants are grown in the ground and harvested with soil around a core of undisturbed roots. This rootball is wrapped in burlap and tied or placed in a wire basket or other supportive structure.

Cuttings are live plant material without a previously developed root system. Source plants for cuttings shall be dormant when cuttings are taken. All cuts shall be made with a sharp instrument. Written permission shall be obtained from property owners and provided to the Engineer before cuttings are collected. The Contractor shall collect cuttings in accordance with applicable sensitive area ordinances. For cuttings, the requirement to be nursery grown or held in nursery conditions does not apply. Cuttings include the following forms:

A. Live branch cuttings shall have flexible top growth with terminal buds and may have side branches. The rooting end shall be cut at an approximate 45 degree angle.

B. Live stake cuttings shall have a straight top cut immediately above a bud. The lower, rooting end shall be cut at an approximate 45degree angle. Live stakes are cut from one to two year old wood. Live stake cuttings shall be cut and installed with the bark intact with no branches or stems attached, and be ½ to 1 ½ inch in diameter.

C. Live pole cuttings shall have a minimum 2inch diameter and no more than three branches which shall be pruned back to the first bud from the main stem.

D. Rhizomes shall be a prostrate or subterranean stem, usually rooting at the nodes and becoming erect at the apex. Rhizomes shall have a minimum of two growth points.

E. Tubers shall be a thickened and short subterranean branch having numerous buds or eyes.

9-14.6(2) Quality

This section is revised to read:

All plant material furnished shall meet the grades established by the latest edition of the American Standard for Nursery Stock, (ASNS) ANSI Z60.1 shall conform to the size and acceptable conditions as listed in the contract, and shall be free of all foreign plant material.

All plant material shall comply with State and Federal laws with respect to inspection for plant diseases and insect infestation.

All plant material shall be purchased from a nursery licensed to sell plants in Washington State.

Live woody or herbaceous plant material, except cuttings, rhizomes, and tubers, shall be vigorous, well formed, with well developed fibrous root systems, free from dead branches, and from damage caused by an absence or an excess of heat or moisture, insects, disease, mechanical or other causes detrimental to good plant development. Evergreen plants shall be well foliated and of good color. Deciduous trees that have solitary leaders shall have only the lateral branches thinned by pruning. All conifer trees shall have only one leader (growing apex) and one terminal bud, and shall not be sheared or shaped. Trees having a damaged or missing leader, multiple leaders, or Y-crotches shall be rejected.

Root balls of plant materials shall be solidly held together by a fibrous root system and shall be composed only of the soil in which the plant has been actually growing. Balled and burlapped rootballs shall be securely wrapped with jute burlap or other packing material not injurious to the plant life. Root balls shall be free of weed or foreign plant growth.

Plant materials shall be nursery grown stock. Plant material, with the exception of cuttings, gathered from native stands shall be held under nursery conditions for a minimum of one full growing season, shall be free of all foreign plant material, and meet all of the requirements of these Specifications, the Plans, and the Special Provisions.

Container grown plants must be plants transplanted into a container and grown in that container sufficiently long for new fibrous roots to have developed so that the root mass will retain its shape and hold together when removed from the container, without having roots that circle the pot. Plant material which is root bound, as determined by the Engineer, shall be rejected. Container plants shall be free of weed or foreign plant growth.

Container sizes for plant material of a larger grade than provided for in the container grown specifications of the ASNS shall be determined by the volume of the root ball specified in the ASNS for the same size plant material.

All bare root plant materials shall have a heavy fibrous root system and must be dormant at the time of planting.

Average height to spread proportions and branching shall be in accordance with the applicable sections, illustrations, and accompanying notes of the ASNS.

Plants specified or identified as "Street Tree Grade" shall be trees with straight trunks, full and symmetrical branching, central leader, and be developed, grown, and

propagated with a full branching crown. A "Street Tree Grade" designation requires the highest grade of nursery shade or ornamental tree production which shall be supplied.

Trees with improperly pruned, broken, or damaged branches, trunk, or root structure shall be rejected. In all cases, whether supplied balled and burlapped or in a container, the root crown (top of root structure) of the tree shall be at the top of the finish soil level. Trees supplied and delivered in a nursery fabric bag will not be accepted.

Plants, which have been determined by the Engineer to have suffered damage as the result of girdling of the roots, stem, or a major branch; have deformities of the stem or major branches; have a lack of symmetry; have dead or defoliated tops or branches; or have any defect, injury, or condition which renders the plant unsuitable for its intended use, shall be rejected.

Plants that are grafted shall have roots of the same genus as the specified plant.

9-14.6(3) Handling and Shipping

The last sentence in the sixth paragraph is deleted.

9-14.6(6) Substitution of Plants

The second paragraph is revised to read:

Container or balled and burlapped plant material may be substituted for bare root plant material. Container grown plant material may be substituted for balled and burlapped plant materials. When substitution is allowed, use current ASNS standards to determine the correct rootball volume (container or balled and burlapped) of the substituted material that corresponds to that of the specified material. These substitutions shall be approved by the Engineer and be at no cost to the Contracting Agency.

9-14.6(7) Temporary Storage

The third paragraph is revised to read:

Cuttings shall continually be shaded and protected from wind. Cuttings must be protected from drying at all times and shall be heeled into moist soil or other insulating material or placed in water if not installed within 8 hours of cutting.Cuttings to be stored for later installation shall be bundled, laid horizontally, and completely buried under 6 inches of water, moist soil or placed in cold storage at a temperature of 34 F and 90% humidity. Cuttings that are not planted within 24 hours of cutting shall be soaked in water for 24 hours prior to planting. Cuttings taken when the temperature is higher than 50°F shall not be stored for later use. Cuttings that already have developed roots shall not be used.

The fourth paragraph is deleted.

SECTION 9-15, IRRIGATION SYSTEM
August 7, 2006

9-15.1 Pipe, Tubing, and Fittings

The second paragraph is revised to read:

Copper pipe or tubing shall be annealed, seamless, and conform to the requirements of ASTM B 88, and shall be a minimum of Type L rating.

SECTION 9-16, FENCE AND GUARDRAIL
April 3, 2006

9-16.1(1)A Post Material for Chain Link Fence

The two references in the second paragraph to "Standard Plan L 2" are revised to "ASTM F1043".

Under Roll Form Material, the reference in the third paragraph to "Standard Plan L 2" is revised to "ASTM F1043".

SECTION 9-22, MONUMENT CASES
August 7, 2006

9-22.1 Monument Cases, Covers, and Risers

The AASHTO requirement is revised to read "AASHTO M 306".

SECTION 9-23, CONCRETE CURING MATERIALS AND ADMIXTURES
April 2, 2007

9-23.6 Admixture for Concrete

The footnote for Accelerating Admixture is revised to read:

* Accelerating admixtures are only allowed for use in the following applications: In Controlled Density Fill (also known as Controlled Low Strength Material) in accordance with Section 2-09.3(1)E Backfilling, in Portland Cement Concrete Pavement in accordance with Section 5-05, and in Section 5-05.3(1) Concrete Mix Designs for Paving.

SECTION 9-28, SIGNING MATERIALS AND FABRICATION
August 6, 2007

9-28.14(1) Timber Sign Posts

The last sentence is revised to read:

Preservative and retention shall be as shown in Section 9-16.2 for sawn posts.

9-28.14(3) Aluminum Structures

The first paragraph is revised to read:

Welding of aluminum shall be in accordance with ANSI/AWS D1.2, latest edition, Structural Welding Code.

SECTION 9-29, ILLUMINATION, SIGNAL, ELECTRICAL
August 6, 2007

9-29.2 Junction Boxes

Section 9-29.2 including title is revised to read:

9-29.2 Junction Boxes, Cable Vaults and Pull Boxes

9-29.2(1) Standard Junction Box

This section including title is revised to read:

9-29.2(1) Standard Duty and Heavy Duty Junction Boxes

For the purposes of this specification concrete is defined as Portland Cement Concrete and non-concrete is all others.

Standard Duty Junction Boxes are defined as Type 1, 2, 7 and 8, and Heavy Duty Junction Boxes are defined as Type 4, 5, and 6.

The Contractor shall provide shop drawings if their manufacturing process or standard production model includes any deviation from the Standard Plan. For each type of junction box, or whenever there is a design change to the junction box, a proof test, as defined in this specification, shall be performed once in the presence of the Engineer.

This section is supplemented with the following new subsections:

9-29.2(1)A Standard Duty Junction Boxes

All Standard Duty Junction Boxes shall have a minimum load rating of 22,500 pounds and be tested in accordance with 9-29.2(1)C. A complete Type 7 or Type 8 Junction Box includes the spread footing shown in the Standard Plans.

Concrete Junction Boxes

The Standard Duty Concrete Junction Box steel frame, lid support, and lid shall be painted with a black paint containing rust inhibiters or painted with a shop applied, inorganic zinc primer in accordance with Section 6-07.3, or hot dip galvanized in accordance with ASTM A 111.

Concrete used in Standard Duty Junction Boxes shall have a minimum compressive strength of 6000 psi when reinforced with a welded wire hoop, or 4000 psi when reinforced with welded wire fabric or fiber reinforcement. The frame shall be anchored to the box by welding the wire fabric to the frame or by welding headed studs 3/8 inch x 3 inches long, as specified in section 9-06.15, to the frame. The wire fabric shall be attached to the studs and frame with standard tie practices. The box shall contain ten studs located near the centerline of the frame and box wall. The studs shall be placed one anchor in each corner, one at the middle of each width and two equally spaced on each length of the box.

Material for Type 1, 2, 7 and 8 Concrete Junction Boxes shall conform to the following:

Concrete	Section 6-02
Reinforcing Steel	Section 9-07
Fiber Reinforcing	ASTM C 1116, Type III
Lid	ASTM A786 diamond plate steel
Frame	ASTM A786 diamond plate steel or ASTM A36 flat steel
Lid Support & Handle	ASTM A36 steel
Anchors (studs)	Section 9-06.15

Non-concrete Junction Boxes

Material for the non-concrete junction boxes shall be of a quality that will provide for a similar life expectancy as Portland Cement Concrete in a direct burial application.

Type 1, 2, 7, and 8 non-concrete junction boxes shall have a Design Load of 22,500 lbs. and shall be tested in accordance with 9-29.2(1)C. Non-concrete junction boxes shall be gray in color and have an open bottom design with approximately the same inside dimensions, and present a load to the bearing surface that is less than or equal to the loading presented by the concrete junction boxes shown in the Standard Plans. Non-concrete junction box lids shall include a pull slot and shall be secured with two ½ inch stainless steel hex-head bolts factory coated with anti-seize compound and recessed into the cover. The tapped holes for the securing bolts shall extend completely through the box to prevent accumulation of debris. Bolts shall conform to ASTM F 593, stainless steel.

9-29.2(1)B Heavy Duty Junction Boxes

Heavy Duty Junction Boxes shall be concrete and have a minimum vertical load rating of 46,000 pounds without permanent deformation and 60,000 pounds without failure when tested in accordance with 9-29.2(1)C.

The Heavy Duty Junction Box steel frame, lid support and lid shall be painted with a shop applied, inorganic zinc primer in accordance with Section 6-07.3.

The concrete used in Heavy Duty Junction Boxes shall have a minimum compressive strength of 4000 PSI.

Material for Type 4, 5, and 6 Concrete Junction Boxes shall conform to the following:

Concrete	Section 6-02
Reinforcing Steel	Section 9-07
Lid	ASTM A786 diamond plate steel, rolled from plate complying with ASTM A572, grade 50 or ASTM A588 with min. CVN toughness of 20 ft-lb at 40 degrees F
Frame and stiffener plates	ASTM A572 grade 50 or ASTM A588, both with min. CVN toughness of 20 ft-lb at 40 degrees F
Handle	ASTM A36 steel
Anchors (studs)	Section 9-06.15
Bolts, Nuts, Washers	ASTM F 593 or A 193, type 304 or 316

The lid stiffener plates shall bear on the frame, and be milled so that there is full even contact, around the perimeter, between the bearing seat and lid stiffener plates, after fabrication of the frame and lid. The bearing seat and lid perimeter bar shall be free from burrs, dirt and other foreign debris that would prevent solid seating. Bolts and nuts shall be liberally coated with anti-seize compound. Bolts shall be installed snug tight. The bearing seat and lid

perimeter bar shall be machined to allow a minimum of 75% of the bearing areas to be seated with a tolerance of 0.0 to 0.005 inches measured with a feeler gage. The bearing area percentage will be measured for each side of the lid as it bears on the frame.

9-29.2(1)C Testing Requirements

Junction boxes shall be tested by an independent materials testing facility, and a test report issued documenting the results of the tests performed.

For concrete junction boxes the independent testing lab shall meet the requirements of AASHTO R 18 for Qualified Tester and Verified Test Equipment. The test shall be conducted in the presence of and signed off by the Engineer or a designated representative. The Contractor shall give the Engineer 30 days notice prior to testing. One copy of the test report shall be furnished to the Contracting Agency certifying that the box and cover meet or exceed the loading requirements for a concrete junction box, and shall include the following information:

1. Product identification.
2. Date of testing.
3. Description of testing apparatus and procedure.
4. All load deflection and failure data.
5. Weight of box and cover tested.
6. Upon completion of the required test(s) the box shall be loaded to failure.
7. A brief description of type and location of failure.

For non-concrete junction boxes the testing facility shall be a Nationally Recognized Testing Laboratory (witnessing is not required). One copy of the test report shall be furnished to the Contracting Agency certifying that the box and cover meet or exceed the loading requirements for a non-concrete junction box, and shall include the following information:

1. Product identification.
2. Date of testing.
3. Description of testing apparatus and procedure.
4. All load deflection data.
5. Weight of box and cover tested.

Testing for Standard Duty Concrete Junction Boxes

Standard Duty Concrete Junction Boxes shall be load tested to 22,500 pounds. The test load shall be applied uniformly through a 10-inch x 10inch x 1inch steel plate centered on the lid. The test load shall be applied and released ten times, and the deflection at the test load and released state shall be recorded for each interval. At each interval the junction box shall be inspected for lid deformation, failure of the lid/frame welds, vertical and horizontal displacement of the lid/frame, cracks, and concrete spalling.

Concrete junction boxes will be considered to have withstood the test if none of the following conditions are exhibited:

1. Permanent deformation of the lid or any impairment to the function of the lid.
2. Vertical or horizontal displacement of the lid frame.
3. Cracks wider than 0.012 inches that extend 12 inches or more.
4. Fracture or cracks passing through the entire thickness of the concrete.
5. Spalling of the concrete.

Testing for the Standard Duty non-concrete Junction Boxes

Non-concrete Junction Boxes shall be tested to a minimum of 22,500 lbs as defined in the ANSI/SCTE 77-2002 Tier 15 test method. In addition the contractor shall provide a Manufacture Certificate of Compliance for each non-concrete junction box installed.

Testing for Heavy Duty Junction Boxes

Heavy Duty Junction Boxes shall be load tested to 46,000 pounds. The test load shall be applied vertically through a 10-inch x 20-inch x 1-inch steel plate centered on the lid with an orientation both on the long axis and the short axis of the junction box. The test load shall be applied and released ten times on each axis. The deflection at the test load and released state shall be recorded for each interval. At each interval the test box shall be inspected for lid deformation, failure of the lid or frame welds, vertical and horizontal displacement of the lid frame, cracks, and concrete spalling. After the twentieth loading interval the test shall be terminated with a 60,000 pound load being applied vertically through the steel plate centered on the lid and with the long edge of steel plate orientated parallel to the long axis of the box.

Heavy Duty Junction Boxes will be considered to have withstood the 46,000 pounds test if none of the following conditions are exhibited:

1. Permanent deformation of the lid or any impairment to the function of the lid.
2. Vertical or horizontal displacement of the lid frame.
3. Cracks wider than 0.012-inches that extend 12-inches or more.
4. Fracture or cracks passing through the entire thickness of the concrete.
5. Spalling of the concrete.

Heavy Duty Junction Boxes will be considered to have withstood the 60,000 pounds test if all of the following conditions are exhibited:

1. The lid is operational.
2. The lid is securely fastened.
3. The welds have not failed.
4. Permanent dishing or deformation of the lid is 1/4 inch or less.
5. No buckling or collapse of the box.

9-29.2 (2) Vacant

This section including title is revised to read:

9-29.2(2) Standard Duty and Heavy Duty Cable Vaults and Pull Boxes

Standard Duty and Heavy Duty Cable Vaults and Pull Boxes shall be constructed as a concrete box and as a concrete lid. The lid for the Heavy Duty and Standard Duty Cable Vaults and Pull Boxes shall be interchangeable and both shall fit the same box as shown in the Standard Plans.

The Contractor shall provide shop drawings if their manufacturing process or standard production model includes any deviation from the Standard Plan. For each type of box or whenever there is a design change to the Cable Vault or Pull box, a proof test, as defined in this specification, shall be performed once in the presence of the Engineer.

This section is supplemented with the following new sections:

9-29.2(2)A Standard Duty Cable Vaults and Pull Boxes

Standard Duty Cable Vaults and Pull boxes shall be concrete and have a minimum load rating of 22,500 pounds and be tested in accordance with 9-29.2(1)C for concrete Standard Duty Junction Boxes.

Concrete for standard duty cable vaults and pull boxes shall have a minimum compressive strength of 4000 psi. The frame shall be anchored to the vault/box by welding the wire fabric to the frame or by welding headed studs 3/8 inch x 3 inches long, as specified in Section 9-06.15, to the frame. The wire fabric shall be attached to the studs and frame with standard tie practices. The vault/box shall contain ten studs located near the centerline of the frame and wall. Studs shall be placed one anchor in each corner, one at the middle of each width and two equally spaced on each length of the vault/box. The steel frame, lid support, and lid shall be painted with a black paint containing rust inhibiters or painted with a shop applied, inorganic zinc primer in accordance with Section 6-07.3 or hot dip galvanized in accordance with ASTM A 111.

Material for Standard Duty Cable Vaults and Pull Boxes shall conform to the following:

Concrete	Section 6-02
Reinforcing Steel	Section 9-07
Lid	ASTM A786 diamond plate steel
Frame	ASTM A786 diamond plate steel or ASTM A36 flat steel
Lid Support & Handle	ASTM A36 steel
Anchors (studs)	Section 9-06.15
Bolts, Nuts, Washers	ASTM F593 or A 193, type 304 or 316

9-29.2(2)B Heavy Duty Cable Vaults and Pull Boxes

Heavy Duty Cable Vaults and Pull Boxes shall be constructed of concrete having a minimum compressive strength of 4000 psi, and have a minimum vertical load rating of 46,000 pounds without permanent deformation and 60,000 pounds without failure when tested in accordance with Section 9-29.2(1)C for Heavy Duty Junction Boxes.

Material for Heavy Duty Cable Vaults and Pull boxes shall conform to the following:

Concrete	Section 6-02
Reinforcing Steel	Section 9-07
Cover	Section 9-05.15(1)
Ring	Section 9-05.15(1)
Anchors (studs)	Section 9-06.15
Bolts, Nuts, Washers	ASTM F593 or A193, type 304 or 316

9-29.2(4) Cover Markings

The first sentence of the first paragraph is revised to read:

Junction boxes, cable vaults, and pull boxes with metallic lids shall be marked with the appropriate legend in accordance with the bead weld details in the Standard Plans. Non-metallic lids shall be embossed with the appropriate legend and a non-skid surface. Legends for metallic lids and non-metallic lids shall be 1-inch nominal height.

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

Junction boxes, cable vaults and pull boxes shall be marked or embossed for use in accordance with the plans and following schedule:

9-29.6 Light and Signal Standards

The first paragraph is revised to read:

Light standards (including light standards with Type 1 or Type 2 luminaire arms) and signal standards (including Types I, II, III, IV, V, PPB, PS, RM, FB, and CCTV) shall be in accordance with the details shown in the Plans, as specified in the Special Provisions and as outlined herein, provided that only one luminaire arm type shall be used throughout the project.

9-29.6(2) Slip Base Hardware

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

Plate washers shall conform to ASTM A 36, and also shall conform to the flatness tolerances specified in AASHTO M 293 for circular washers.

9-29.6(4) Welding

This section is revised to read:

Welding of steel structures shall be in accordance with AWS D1.1/D1.1M, latest edition, Structural Welding Code, and Section 6-03.3(25).

9-29.6(5) Foundation Hardware

The second and third paragraphs are revised to read:

Anchor bolts, and associated nuts and washers, for Type CCTV, II, III, IV, and V signal standards and luminaire poles shall conform to Section 9-06.5(4). Anchor rods conforming to ASTM A 449 may be substituted, provided that the galvanized ASTM A 449 anchor rods having an ultimate tensile strength above 145 ksi shall be tested for embrittlement in accordance with either ASTM A 143 (if the rod length is equal to or

greater than five times the bolt diameter) or ASTM F 606 Section 7 (if the rod length is less than five times the nominal bolt diameter).

All foundation hardware shall be 100% hot-dipped galvanized in accordance with AASHTO M 111 and AASHTO M 232.

SECTION 9-30, WATER DISTRIBUTION MATERIALS
August 7, 2006

9-30.6(3)A Copper Tubing

This section is revised to read:

Copper pipe or tubing shall be annealed, seamless, and conform to the requirements of ASTM B 88, Type K rating.

SECTION 9-33, CONSTRUCTION GEOTEXTILE
August 7, 2006

Section 9-33 including title is revised in its entirety to read:

SECTION 9-33, CONSTRUCTION GEOSYNTHETIC

9-33.1 Geosynthetic Material Requirements

The term geosynthetic shall be considered to be inclusive of geotextiles, geogrids, and prefabricated drainage mats.

Geotextiles, including geotextiles attached to prefabricated drainage core to form a prefabricated drainage mat, shall consist only of long chain polymeric fibers or yarns formed into a stable network such that the fibers or yarns retain their position relative to each other during handling, placement, and design service life. At least 95 percent by weight of the material shall be polyolefins or polyesters. The material shall be free from defects or tears. The geotextile shall also be free of any treatment or coating which might adversely alter its hydraulic or physical properties after installation.

Geogrids shall consist of a regular network of integrally connected polymer tensile elements with an aperture geometry sufficient to permit mechanical interlock with the surrounding backfill. The long chain polymers in the geogrid tensile elements, not including coatings, shall consist of at least 95 percent by mass of the material of polyolefins or polyesters. The material shall be free of defects, cuts, and tears.

Prefabricated drainage core shall consist of a three dimensional polymeric material with a structure that permits flow along the core laterally, and which provides support to the geotextiles attached to it.

The geosynthetic shall conform to the properties as indicated in Tables 1 through 8 in Section 9-33.2, and additional tables as required in the Standard Plans and Special Provisions for each use specified in the Plans. Specifically, the geosynthetic uses included in this section and their associated tables of properties are as follows:

Geotextile Geosynthetic Application	Applicable Property Tables

Underground Drainage, Low and Moderate Survivability, Classes A, B, and C	Tables 1 and 2
Separation	Table 3
Soil Stabilization	Table 3
Permanent Erosion Control, Moderate and High Survivability, Classes A, B, and C	Tables 4 and 5
Ditch Lining	Table 4
Temporary Silt Fence	Table 6
Permanent Geosynthetic Retaining Wall	Table 7 and Std. Plans
Temporary Geosynthetic Retaining Wall	Tables 7 and 10
Prefabricated Drainage Mat	Table 8
Table 10 will be included in the Special Provisions.	

Geogrid and geotextile reinforcement in geosynthetic retaining walls shall conform to the properties specified in the Standard Plans for permanent walls, and Table 10 for temporary walls.

For geosynthetic retaining walls that use geogrid reinforcement, the geotextile material placed at the wall face to retain the backfill material as shown in the Plans shall conform to the properties for Construction Geotextile for Underground Drainage, Moderate Survivability, Class A.

Thread used for sewing geotextiles shall consist of high strength polypropylene, polyester, or polyamide. Nylon threads will not be allowed. The thread used to sew permanent erosion control geotextiles, and to sew geotextile seams in exposed faces of temporary or permanent geosynthetic retaining walls, shall also be resistant to ultraviolet radiation. The thread shall be of contrasting color to that of the geotextile itself.

9-33.2 Geosynthetic Properties

9-33.2(1) Geotextile Properties

Table 1: Geotextile for underground drainage strength properties for survivability.

	ASTM Test Method[2]	Geotextile Property Requirements[1]			
		Low Survivability		Moderate Survivability	
Geotextile Property		**Woven**	**Nonwoven**	**Woven**	**Nonwoven**
Grab Tensile Strength, in machine and x-machine direction	D 4632	180 lb min.	115 lb min.	250 lb min.	160 lb min.
Grab Failure Strain, in machine and x-machine direction	D 4632	< 50%	≥ 50%	< 50%	≥ 50%
Seam Breaking Strength	D 4632[3]	160 lb min.	100 lb min.	220 lb min.	140 lb min.

Puncture Resistance	D 6241	370 lb min.	220 lb min.	495 lb min.	310 lb min.
Tear Strength, in machine and x-machine direction	D 4533	67 lb min.	40 lb min.	80 lb min.	50 lb min.
Ultraviolet (UV) Radiation Stability	D 4355	50% strength retained min., after 500 hours in a xenon arc device			

Table 2: Geotextile for underground drainage filtration properties.

Geotextile Property	**ASTM Test Method[2]**	**Geotextile Property Requirements[1]**		
		Class A	**Class B**	**Class C**
Apparent Opening Size	D 4751	U.S. No. 40 max.	U.S. No. 60 max.	U.S. No. 80 max.
Water Permittivity	D 4491	0.5 sec^{-1} min.	0.4 sec^{-1} min.	0.3 sec^{-1} min.

Table 3: Geotextile for separation or soil stabilization.

Geotextile Property	**ASTM Test Method[2]**	**Geotextile Property Requirements[1]**			
		Separation		**Soil Stabilization**	
		Woven	**Nonwoven**	**Woven**	**Nonwoven**
Apparent Opening Size	D 4751	U.S. No. 30 max.		U.S. No. 40 max.	
Water Permittivity	D 4491	0.02 sec^{-1} min.		0.10 sec^{-1} min.	
Grab Tensile Strength, in machine and x-machine direction	D 4632	250 lb min.	160 lb min.	315 lb min.	200 lb min.
Grab Failure Strain, in machine and x-machine direction	D 4632	< 50%	≥ 50%	< 50%	≥ 50%
Seam Breaking Strength	D 4632[3]	220 lb min.	140 lb min.	270 lb min.	180 lb min.
Puncture Resistance	D 6241	495 lb min.	310 lb min.	620 lb min.	430 lb min.
Tear Strength, in machine and x-machine direction	D 4533	80 lb min.	50 lb min.	112 lb min.	79 lb min.
Ultraviolet (UV) Radiation Stability	D 4355	50% strength retained min., after 500 hours in xenon arc device			

Table 4: Geotextile for permanent erosion control and ditch lining.

Geotextile Property	ASTM Test Method[2]	Geotextile Property Requirements[1]					
		Permanent Erosion Control				Ditch Lining	
		Moderate Survivability		High Survivability			
		Woven	Non-woven	Woven	Non-woven	Woven	Non-woven
Apparent Opening Size	D 4751	See Table 5		See Table 5		U.S. No. 30 max.	
Water Permittivity	D 4491	See Table 5		See Table 5		0.02 sec^{-1} min.	
Grab Tensile Strength, in machine and x-machine direction	D 4632	250 lb min.	160 lb min.	315 lb min.	200 lb min.	250 lb min.	160 lb min.
Grab Failure Strain, in machine and x-machine direction	D 4632	15% - 50%	≥ 50%	15% - 50%	≥ 50%	< 50%	≥ 50%
Seam Breaking Strength	D 4632[3]	220 lb min.	140 lb min.	270 lb min.	180 lb min.	220 lb min.	140 lb min.
Puncture Resistance	D 6241	495 lb min.	310 lb min.	620 lb min.	430 lb min.	495 lb min.	310 lb min.
Tear Strength, in machine and x-machine direction	D 4533	80 lb min.	50 lb min.	112 lb min.	79 lb min.	80 lb min.	50 lb min.
Ultraviolet (UV) Radiation Stability	D 4355	70% strength retained min., after 500 hours in xenon arc device					

Table 5: Filtration properties for geotextile for permanent erosion control.

Geotextile Property	ASTM Test Method[2]	Geotextile Property Requirements[1]		
		Class A	Class B	Class C
Apparent Opening Size	D 4751	U.S. No. 40 max.	U.S. No. 60 max.	U.S. No. 70 max.
Water Permittivity	D 4491	0.7 sec^{-1} min.	0.4 sec^{-1} min.	0.2 sec^{-1} min.

Table 6: Geotextile for temporary silt fence.

Geotextile Property	ASTM Test Method[2]	Geotextile Property Requirements[1]	
		Unsupported Between Posts	Supported Between Posts with Wire or Polymeric Mesh
Apparent Opening Size	D 4751	U.S. No. 30 max. for slit wovens, U.S. No. 50 for all other geotextile types, U.S. No. 100 min.	
Water Permittivity	D 4491	0.02 sec^{-1} min.	
Grab Tensile Strength, in machine and x-machine direction	D 4632	180 lb min. in machine direction, 100 lb min. in x-machine direction	100 lb min.
Grab Failure Strain, in machine and x-machine direction	D 4632	30% max. at 180 lb or more	
Ultraviolet (UV) Radiation Stability	D 4355	70% strength retained min., after 500 hours in xenon arc device	

9-33.2(2) Geosynthetic Properties For Retaining Walls and Reinforced Slopes

Table 7: Minimum properties required for geotextile reinforcement used in geosynthetic reinforced slopes and retaining walls.

Geotextile Property	ASTM Test Method[2]	Geotextile Property Requirements[1]	
		Woven	Nonwoven
Apparent Opening Size	D 4751	U.S. No. 20 max.	
Water Permittivity	D 4491	0.02 sec^{-1} min.	
Grab Tensile Strength, in machine and x-machine direction	D 4632	200 lb min.	120 lb min.
Grab Failure Strain, in machine and x-machine direction	D 4632	< 50%	≥ 50%
Seam Breaking Strength	D 4632[3,4]	160 lb min.	100 lb min.
Puncture Resistance	D 6241	370 lb min.	220 lb min.
Tear Strength, in machine and x-machine direction	D 4533	63 lb min.	50 lb min.
Ultraviolet (UV) Radiation Stability	D 4355	70% (for polypropylene and polyethylene) and 50% (for polyester) Strength Retained min., after 500 hours in a xenon arc device	

9-33.2(3) Prefabricated Drainage Mat

Prefabricated drainage mat shall have a single or double dimpled polymeric core with a geotextile attached and shall meet the following requirements:

Table 8: Minimum properties required for prefabricated drainage mats.

Geotextile Property	ASTM Test Method[2]	Geotextile Property Requirements[1]
Apparent Opening Size	D 4751	U.S. No. 60 max.
Water Permittivity	D 4491	0.4 sec^{-1} min.
Grab Tensile Strength, in machine and x-machine direction	D 4632	Nonwoven – 100 lb min.
Width Thickness	D 5199	12 In. min. 0.4 In. min.
Compressive Strength at Yield	D 1621	100 psi min.
In Plan Flow Rate Gradient = 0.1, Pressure = 5.5 psi Gradient = 1.0, Pressure = 14.5 psi	D 4716	 5.0 gal./min./ft. 15.0 gal/min./ft.

[1]All geotextile properties in Tables 1 through 8 are minimum average roll values (i.e., the test results for any sampled roll in a lot shall meet or exceed the values shown in the table).

[2]The test procedures used are essentially in conformance with the most recently approved ASTM geotextile test procedures, except for geotextile sampling and specimen conditioning, which are in accordance with WSDOT Test Methods T 914, Practice for Sampling of Geotextiles for Testing, and T 915, Practice for Conditioning of Geotextiles for Testing, respectively. Copies of these test methods are available at the State Materials Laboratory P.O. Box 47365, Olympia, WA 98504-7365.

[3]With seam located in the center of 8-inch long specimen oriented parallel to grip faces.

[4]Applies only to seams perpendicular to the wall face.

9-33.3 Aggregate Cushion of Permanent Erosion Control Geotextile

Aggregate cushion for permanent erosion control geotextile, Class A shall meet the requirements of Section 9-03.9(2). Aggregate cushion for permanent erosion control geotextile, Class B or C shall meet the requirements of Section 9-03.9(3) and 9-03.9(2).

9-33.4 Geosynthetic Material Approval and Acceptance

9-33.4(1) Geosynthetic Material Approval

If the geosynthetic source material has not been previously evaluated, or is not listed in the current WSDOT Qualified Products List (QPL), a sample of each proposed geosynthetic shall be submitted to the State Materials Laboratory in Tumwater for evaluation. Geosynthetic material approval will be based on conformance to the applicable properties from the Tables in Section 9-33.2 or in the Standard Plans or Special Provisions. After the sample and required information for each geosynthetic type have arrived at the State Materials Laboratory in Tumwater,

a maximum of 14 calendar days will be required for this testing. Source approval shall not be the basis of acceptance of specific lots of material delivered to the Contractor unless the roll numbers of the lot sampled can be clearly identified as the rolls tested and approved in the geosynthetic approval process.

For geogrid and geotextile products proposed for use in permanent geosynthetic retaining walls or reinforced slopes that are not listed in the current QPL, the Contractor shall submit test information and the calculations used in the determination of T_{al} performed in accordance with WSDOT Standard Practice T 925, Standard Practice for Determination of Long-Term Strength for Geosynthetic Reinforcement, to the State Materials Laboratory in Tumwater for evaluation. The Contracting Agency will require up to 30 calendar days after receipt of the information to complete the evaluation.

The Contractor shall submit to the Engineer the following information regarding each geosynthetic material proposed for use:

Manufacturer's name and current address,
Full product name,
Geosynthetic structure, including fiber/yarn type,
Geosynthetic polymer type(s) (for temporary and permanent geosynthetic retaining walls),
Proposed geosynthetic use(s), and
Certified test results for minimum average roll values.

9-33.4(2) Vacant

9-33.4(3) Acceptance Samples

When the quantities of geosynthetic materials proposed for use in the following geosynthetic applications are greater than the following amounts, acceptance shall be by satisfactory test report:

Application	Geosynthetic Quantity
Underground Drainage	600 sq. yd.
Temporary or Permanent Geosynthetic Retaining Walls	All quantities

The samples for acceptance testing shall include the information about each geosynthetic roll to be used as stated in 9-33.4(4).

Samples will be randomly taken by the Engineer at the job site to confirm that the geosynthetic meets the property values specified.

Approval will be based on testing of samples from each lot. A "lot" shall be defined for the purposes of this specification as all geosynthetic rolls within the consignment (i.e., all rolls sent the project site) that were produced by the same manufacturer during a continuous period of production at the same manufacturing plant and have the same product name. After the samples have arrived at the State Materials Laboratory in Tumwater, a maximum of 14 calendar days will be required for this testing.

If the results of the testing show that a geosynthetic lot, as defined, does not meet the properties required for the specified use as indicated in Tables 1 through 8 in Section 9-33.2, and additional tables as specified in the Special Provisions, the roll or rolls which were sampled will be rejected. Geogrids and geotextiles for temporary geosynthetic retaining walls shall meet the requirements of Table 7, and Table 10 in the Special Provisions. Geogrids and geotextiles for permanent geosynthetic retaining wall shall meet the requirements of Table 7, and Table 9 in the Special Provisions, and both geotextile and geogrid acceptance testing shall meet the required ultimate tensile strength T_{ult} as provided in the current QPL for the selected product(s). If the selected product(s) are not listed in the current QPL, the result of the testing for T_{ult} shall be greater than or equal to T_{ult} as determined from the product data submitted and approved by the State Materials Laboratory during source material approval.

Two additional rolls for each roll tested which failed from the lot previously tested will then be selected at random by the Engineer for sampling and retesting. If the retesting shows that any of the additional rolls tested do not meet the required properties, the entire lot will be rejected. If the test results from all the rolls retested meet the required properties, the entire lot minus the roll(s) that failed will be accepted. All geosynthetic that has defects, deterioration, or damage, as determined by the Engineer, will also be rejected. All rejected geosynthetic shall be replaced at no additional expense to the Contracting Agency.

9-33.4(4) Acceptance by Certificate of Compliance

When the quantities of geosynthetic proposed for use in each geosynthetic application are less than or equal to the following amounts, acceptance shall be by Manufacturer's Certificate of Compliance:

Application	Geosynthetic Quantity
Underground Drainage	600 sq. yd.
Soil Stabilization and Separation	All quantities
Permanent Erosion Control	All quantities
Temporary Silt Fence	All quantities
Prefabricated Drainage Mat	All quantities

The Manufacturer's Certificate of Compliance shall include the following information about each geosynthetic roll to be used:

Manufacturer's name and current address,
Full product name,
Geosynthetic structure, including fiber/yarn type,
Geosynthetic Polymer type (for all temporary and permanent geosynthetic retaining walls only),
Geosynthetic roll number(s),
Geosynthetic lot number(s),
Proposed geosynthetic use(s), and
Certified test results.

9-33.4(5) Approval of Seams

If the geotextile seams are to be sewn in the field, the Contractor shall provide a section of sewn seam that can be sampled by the Engineer before the geotextile is installed.

The seam sewn for sampling shall be sewn using the same equipment and procedures as will be used to sew the production seams. If production seams will be sewn in both the machine and cross-machine directions, the Contractor must provide sewn seams for sampling which are oriented in both the machine and cross-machine directions. The seams sewn for sampling must be at least 2 yards in length in each geotextile direction. If the seams are sewn in the factory, the Engineer will obtain samples of the factory seam at random from any of the rolls to be used. The seam assembly description shall be submitted by the Contractor to the Engineer and will be included with the seam sample obtained for testing. This description shall include the seam type, stitch type, sewing thread type(s), and stitch density.

SECTION 9-34, PAVEMENT MARKING MATERIAL
August 6, 2007

9-34.2 Paint

This section is revised to read:

White and yellow paint shall comply with the specifications for high volatile organic compound (VOC) solvent based paint, low VOC solvent based paint or low VOC waterborne paint. Blue paint for "Access Parking Space Symbol with Background" shall be chosen from a WSDOT QPL listed Manufacturer. The blue color shall match Fed Standard 595, color 15090 and the tolerance of variation shall match that shown in the FHWA "Highway Blue Color Tolerance Chart."

9-34.3 Plastic

This section is revised to read:

White and yellow plastic pavement marking materials shall comply with the specifications for:

Type A – Liquid hot applied thermoplastic
Type B – Pre-formed fused thermoplastic
Type C – Cold applied pre-formed tape
Type D – Liquid cold applied methyl methacrylate

Blue plastic pavement marking material for "Access Parking Space Symbol with Background" shall be chosen from a WSDOT QPL listed Manufacturer. The blue color shall match Fed Standard 595, color 15090 and the tolerance of variation shall match that shown in the FHWA "Highway Blue Color Tolerance Chart."

9-34.4 Glass Beads

This section is revised to read:

Glass beads for traffic paint shall conform to AASHTO M 247 and the following:

Gradation - AASHTO M 247 Type 1

Coating - The glass beads shall be coated with a silicone for moisture resistance and a silane to promote adhesion in both waterborne and solvent base traffic paint. The presence of the coating is to be verified by WSDOT test method T430.

Chemical Make-up and Environmental Protection - Glass beads shall not contain any element in excess of the following established total concentration limits when tested in accordance with the listed test methodology.

Concentration Limits.

Element	Test Method	Max. parts per million (ppm)
Arsenic	*EPA SW846 6010B	20.0 ppm
Barium	*EPA SW846 6010B	100.0 ppm
Cadmium	*EPA SW846 6010B	1.0 ppm
Chromium	*EPA SW846 6010B	5.0 ppm
Lead	*EPA SW846 6010B	50.0 ppm
Selenium	*EPA SW846 6010B	1.0 ppm
Silver	*EPA SW846 6010B	5.0 ppm
Mercury	**EPA SW846 7471A	0.2 ppm

Test Method: * EPA's SW846 6010B, inductively coupled plasma-atomic emissions spectrometry (ICP-AES). Reference Concentration Limits. **EPA's Method SW846 7471A, cold-vapor absorption method. Reference Concentration Limits.

SECTION 9-35, TEMPORARY TRAFFIC CONTROL MATERIALS
August 6, 2007

9-35.0 General Requirements

The list of items is supplemented with the following:

Portable Temporary Traffic Control Signal

Tall Channelizing Devices

9-35.2 Construction Signs

The first paragraph is supplemented with the following:

Post mounted Class A construction signs shall conform to the requirements of this section and additionally shall conform to the requirements stated in section 9-28.

The second paragraph is revised to read:

Aluminum sheeting shall be used to fabricate all construction signs. The signs shall have a minimum thickness of 0.080-inches and a maximum thickness of 0.125-inches.

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

The use of plywood, composite, fiberglass reinforced plastic, new fabric rollup signs, and any other previously approved sign materials except aluminum is prohibited. Any sign which otherwise meets the requirements of this section and was purchased prior to

July 1, 2004, may be utilized until December 31, 2007. If a fabric sign is used, it shall have been fabricated with Type VI reflective sheeting.

This section is supplemented with the following:

All Class A and Class B signs shall utilize materials and be fabricated in accordance with Section 9-28 and the Washington State Sign Fabrication Manual (M55-05). All regulatory signs having a red background (i.e. Stop, Yield, etc.) shall be fabricated with Type III or IV sign sheeting. All other regulatory information signs (i.e. Speed Limit, Traffic Fines Double in Work Zones, etc) shall have Type II sheeting in rural areas and Type III or IV sheeting in urban areas. All signs having a green background (i.e. Exit arrow, etc.) shall have Type II sheeting for the background and Type III or IV sheeting for the letters, border, and symbols.

9-35.5 Portable Changeable Message Signs

The second paragraph is supplemented with the following:

9. Primary source of power shall be solar power with a battery backup to provide continuous operation when failure of the primary power source occurs.

10. The sign controller software shall be NTCIP compliant.

9-35.7 Traffic Safety Drums

The physical characteristics for Overall Width in the first paragraph are revised to read:

Overall Width	18-inch minimum regardless of orientation.

The fourth paragraph is supplemented with the following:

Retroreflective bands shall be fabricated from Type III or Type IV reflective sheeting as described in Section 9-28.12.

9-35.8 Barrier Drums

The third paragraph is revised to read:

Barrier drums shall have three 4-inch retro-reflective white bands, (one complete and two partial). Bands shall be fabricated from Type III or Type IV reflective sheeting as described in Section 9-28.12.

9-35.9 Traffic Cones

This section is supplemented with the following:

Retroreflective bands shall be fabricated from Type III or Type IV reflective sheeting as described in Section 9-28.12.

9-35.10 Tubular Markers

The second paragraph is revised to read:

The devices shall be stabilized by affixing them to the pavement by using either weighted bases or adhesive. Adhesive used to glue the device to the pavement shall

meet the requirements of Section 9-02.1(8) or 9-26.2. Retroreflective bands shall be fabricated from Type III or Type IV reflective sheeting as described in Section 9-28.12.

9-35.12 Truck-Mounted Attenuator

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

The Contractor shall provide certification that the unit complies with NCHRP 350 Test level 3 requirements.

The fifth sentence in the first paragraph is deleted.

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

The standard chevron pattern shall consist of 4-inch yellow stripes, alternating non-reflective black and retro-reflective yellow sheeting, slanted at 45 degrees in an inverted "V" with the "V" at the center of the unit.

Section 9-35 is supplemented with the following new sub-sections:

9-35.13 Tall Channelizing Devices

Tall channelizing devices shall meet the requirements of the MUTCD Part VI for channelizing devices and shall conform to the following general specifications:

Fabricated of fade resistant, safety orange color, low-density polyethylene that is resistant to deformation upon impact and meets the requirements of ASTM D 4976 and is UV stabilized.

42" in height minimum, using a tapered cone type shape of consistent dimensions regardless of orientation to traffic.

4" in width minimum at the top and 8" in width minimum at the base, which incorporates a separate ballast that is designed to resist overturning or other movement from wind gusts or other external forces.

Four retroreflective 6" wide horizontal bands, alternating orange and white beginning 6" from the top of the device. Retroreflective bands shall be fabricated from Type III or Type IV reflective sheeting as described in Section 9-28.12.

Warning lights are not required unless specifically shown on the traffic control plan but provisions for securely attaching a warning light are required. The method of attachment must ensure that the light does not separate from the device upon impact and light units shall meet the crashworthiness requirements of NCHRP 350 as described in Section 1-10.2(3)

Devices shall be regularly maintained to ensure that they are clean and the reflective sheeting is in good condition.

Except for the specifications and requirements specifically listed above, Tall Channelizing Devices are defined to be Traffic Cones. All non-conflicting contract provisions related to "Cones" shall apply to Tall Channelizing Devices.

9-35.14 Portable Temporary Traffic Control Signal

Portable traffic control signals shall meet the requirements of the MUTCD and the following:

The portable temporary traffic control signal shall be fully operational for two-phase traffic actuated, pre-timed, or manual control. The portable temporary traffic control signal shall consist of the following major elements:

Controllers shall demonstrate conflict-monitoring capability, consistent with the requirements of Section 9-29.13(2) item number 5, with a flashing red display in both directions. The portable traffic control signal shall be capable of terminating the movement one (1) or movement two (2) all red clearance, in order to repeat the previous movements operation.

Signal head displays shall be either hard wired or controlled by radio signal. Manual operation will not require hardwiring or radio control except for the use of two-way radio communication by manufacturer trained qualified operators.

The system shall be equipped with a means of informing the operator of signal indications, such as a light on the back of each signal head that illuminates when the signal displays a red indication, during manual operation.

A vehicle detection system is required. The system shall be capable of operating either as fixed time or traffic actuated controller. The detection system shall provide presence detection (continuous call to the controller) while there is a vehicle in the detection zone.

Signal supports used with portable traffic control signals shall provide a minimum of two signal displays, spaced a minimum of 8 feet apart. When trailer mounted portable traffic signals are used to provide alternating one-way control, a minimum of one of the signal displays shall be suspended over the traveled way. The minimum vertical clearance to the traveled way for this signal display is 16.5 feet. Vehicular signal heads shall be of the conventional type with standard ITE approved, 12-inch ball LED display. Tunnel visors shall be provided for all indications. The system shall include a countdown display capable of a 199 second countdown clock for motorist information when there is no direct line of sight between the stop bar locations.

Back plates shall be furnished and attached to the signal heads. Back plates shall be constructed of 5 inch wide .050 inch thick corrosion resistant louvered aluminum, with a flat black finish. A highly retroreflective strip, 3-in wide, shall be placed around the perimeter of the face of all vehicle signal backplates to project a rectangular image at night towards oncoming traffic.

Trailers shall have a leveling jack installed at all four corners. The crank for the leveling jacks and trailer hitch shall be locked. The signal pole and mast arm assemblies shall be of the collapsible type, which can be erected and extended at the job site. The mast arm assemblies shall be firmly attached to the trailer to form a stable unit, which can withstand an 80 mph design wind speed with a 1.3 gust factor.

The portable temporary traffic control signal shall be powered using a self-contained battery system capable of providing over 12 days of continuous operations without solar array assistance. A solar panel array will be allowed.

SPECIAL PROVISIONS

The following Special Provisions are made a part of this contract and supersede any conflicting provisions of the 2006 Standard Specifications for Road, Bridge and Municipal Construction, and the foregoing Amendments to the Standard Specifications.

Several types of Special Provisions are included in this contract; General, Region, Bridges and Structures, and Project Specific. Special Provisions types are differentiated as follows:

(date)	General Special Provision
(******)	Notes a revision to a General Special Provision and also notes a Project Specific Special Provision.
(Regions[1] date)	Region Special Provision
(BSP date)	Bridges and Structures Special Provision

General Special Provisions are similar to Standard Specifications in that they typically apply to many projects, usually in more than one Region. Usually, the only difference from one project to another is the inclusion of variable project data, inserted as a "fill-in".

Region Special Provisions are commonly applicable within the designated Region. Region designations are as follows:

Regions[1]	
ER	Eastern Region
NCR	North Central Region
NWR	Northwest Region
OR	Olympic Region
SCR	South Central Region
SWR	Southwest Region
WSF	Washington State Ferries Division

Bridges and Structures Special Provisions are similar to Standard Specifications in that they typically apply to many projects, usually in more than one Region. Usually, the only difference from one project to another is the inclusion of variable project data, inserted as a "fill-in".

Project Specific Special Provisions normally appear only in the contract for which they were developed.

DIVISION 1
GENERAL REQUIREMENTS

DESCRIPTION OF WORK

(March 13, 1995)
This contract provides for the improvement of *** SR 99, by constructing substructure modifications to Bridge No. 99/560 Piers 93 and 94 that includes excavating around the existing footings, removing concrete pedestals around the columns, drilling dowels into existing columns and footings, drilling micropiles around the perimeter of each footing, placing reinforcing steel, encasing the modified footings with concrete and back fill, restoring

existing drainage, water line work, constructing a pedestrian/bicycle facility, *** and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

BID PROCEDURES AND CONDITIONS

(March 13, 1995)
Examination Of Plans, Specifications And Site Of Work

Section 1-02.4, is supplemented with the following:

The soils information used for study and design of this project is available for review by the bidder at the following address:

Project Engineer's Office

Preparation Of Proposal

(November 20, 2000)
Public Opening Of Proposal

Section 1-02.12 is supplemented with the following:

Date Of Opening Bids

Sealed bids are to be received at one of the following locations prior to the time Specified:

1. At Post Office Box 47360, Olympia, Washington 98504-7360 until 11:00 A.M. of the bid opening date. The Department of Transportation will consider notification of bid receipt by the Post Office as the actual receipt of the bid.

2. In the Department of Transportation Bid Room, located at the Transportation Building, 310 Maple Park Avenue SE, Olympia WA 98501-2361, until 11:00 A.M. of the bid opening date. Bids delivered in person will be received only in the Bid Room on the bid opening date.

The bid opening date for this project is Wednesday, August 29, 2007. Bids received will be publicly opened and read after 11:00 A. M. on this date.

CONTROL OF WORK

(March 13, 1995)
Cooperation With Other Contractors

Section 1-05.14 is supplemented with the following:

Other Contracts Or Other Work

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

Archaeological and Historical Salvage
Settlement Monitoring
Surveying

CONTROL OF MATERIAL

Buy America

Section 1-06 is supplemented with the following:

(August 6, 2007)

The major quantities of steel and iron construction material that is permanently incorporated into the project shall consist of American-made materials only. Buy America does not apply to temporary steel items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

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

American-made material is defined as material having all manufacturing processes occurring domestically. To further define the coverage, a domestic product is a manufactured steel material that was produced in one of the 50 States, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

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

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

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

The following are considered to be steel manufacturing processes:

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

    a. Open hearth furnace.

    b. Basic oxygen.

    c. Electric furnace.

    d. Direct reduction.

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

3. Fabrication of the products.

    a. Spinning wire into cable or strand.

    b. Corrugating and rolling into culverts.

    c. Shop fabrication.

A certification of materials origin will be required for any items comprised of, or containing, steel or iron construction materials prior to such items being incorporated into the permanent work. The certification shall be on DOT Form 350-109EF provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as DOT Form 350-109EF.

LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

Laws To Be Observed

Section 1-07.1 is supplemented with the following:

(******)

City of Seattle Noise Variance

The City of Seattle has granted 3 14-day variances to its noise ordinance for night time construction on this project. The variance allows the Contractor to exceed the local night time noise ordinance levels. Unless otherwise approved by the Engineer in writing, nighttime work shall be restricted to the conditions of the variance.

Except in the case of emergency, whenever the Contractor works between the night time hours of 10:00 p.m. and 7:00 a.m. Monday through Friday or between 10:00 p.m. and 9:00 a.m. Saturday through Sunday and exceeds the local ordinance noise levels, the Contractor shall, in addition to other restrictions of this section or other ordinances, perform the following measures to minimize construction noise:

1. Impact/impulse tools such as jackhammers and concrete saws, sandblasting equipment, generators, and compressors may be used between the hours 10:00 p.m. and 7:00 a.m. Monday through Friday and between the hours of 10:00 p.m. and 9:00 a.m. Saturday, Sunday and holidays provided WSDOT-approved noise mitigation shields are used during this type of work.

2. All backup warning devices shall use a broadband alarm type or the contractor may use a backup observer in lieu of backup warning devices as allowed by WAC Chapter 296-155-610(2) (E).

3. All trucks performing export haul shall have rubber bed liners between the hours of 10:00 p.m. and 7:00 a.m. Sunday night through Friday and between 10:00 p.m. and 9:00 a.m. on Friday night through Sunday morning.

4. During pavement removal, all material spilled on the roadway shall be removed by hand methods or sweeping. No scraping type equipment shall be used.

5. Stationary equipment, such as light plants and generators are allowed provided that WSDOT-approved noise mitigation shields are used. Other machinery for off-road use, such as cranes, shall use double mufflers where practicable. The Contractor shall use noise blankets, skirts, or other means available for all mobile equipment to mitigate noise that does not reasonably interfere with the operation of the engine.

6. The Contractor shall provide written notification to residents within 500 feet of the nighttime work zone area seven days prior to the commencement of the work. The Contractor shall provide a copy for review and approval to the Engineer at least ten days prior of mailing deadline.

   The notification shall contain the following information:

   - Legal project title, MP location, jurisdiction, description of the project, and description of the items of work to be performed at night by the Contractor.
   - Start date and duration of the nighttime work.
   - List of the expected nighttime noise sources.
   - List of noise mitigation measures to be implemented.

     A 24-hour WSDOT construction office complaint number as well as a list of designated contact persons for the purpose of forwarding complaints.

   A sample of a written notification is available from the Engineer upon request.

Failure of the Contractor to perform all obligations under this Special Provision will result in the suspension of all night work.

A copy of the variance obtained by the Contracting Agency is available at the Project Engineer's Office.

Payment

All costs to comply with the noise variance requirements above shall be included in the associated items of work.

(NWR December 8, 2003)

Temporary Noise Shields

The Contractor shall furnish temporary wood frame noise shields constructed from standard building materials in accordance with the detail in the Plans. The shields shall be used to comply with the City of *** Seattle *** noise variance/exemption conditions listed elsewhere in this Special Provision. The number of noise shields will depend on the Contractor's method of performing the work.

All costs associated with the portable noise shields shall be included in *** the applicable adjacent bid item ***.

(April 3, 2006)

Confined Space

Confined spaces are known to exist at the following locations:

*** Excavation pits located at Bents 93 & 94 ***

The Contractor shall be fully responsible for the safety and health of all on-site workers and compliant with Washington Administrative Code (WAC 296-809).

The Contractor shall prepare and implement a confined space program for each of the confined spaces identified above. The Contractors Confined Space program shall be sent to the contracting agency at least 30 days prior to the contractor beginning work in or adjacent to the confined space. No work shall be performed in or adjacent to the confined space until the plan is submitted to the Engineer as required. The Contractor shall communicate with the Project Engineer to ensure a coordinated effort for providing and maintaining a safe worksite for both the Contracting Agency's and Contractor's workers when working in or near a confined space.

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

State Taxes

Section 1-07.2 is supplemented with the following:

(March 13, 1995)

The work on this contract is to be performed upon lands whose ownership obligates the Contractor to pay Sales tax. The provisions of Section 1-07.2(1) apply.

Environmental Regulations

State Department of Ecology

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

(NWR October 17,2005)

Concrete Grinding and Sawcutting Residue and Slurry

Construction activities that generate residue from Portland cement concrete grinding or sawcutting shall be subject to the following:

Collection, Containment, and Disposal

Containment measures shall be in place prior to the start of any concrete grinding, sawcutting activities or both. The Contractor shall provide immediate slurry/residue collection during all concrete grinding, sawcutting activities or both. The residue and slurry shall become the property of the Contractor.

Grinding and sawcutting activities shall be discontinued if slurry/residue recovery devices are inoperable or inadequate as determined by the Engineer. Residue and slurry shall not be allowed to drain across traffic lanes and shoulders or drain into any stormwater conveyance system, including catch basins, inlets, or ditches. Any discharge of slurry/residue to surface waters, including wetlands, is a violation of State water quality standards.

The Contractor shall develop a Collection, Containment, and Disposal Plan identifying how the residue and slurry will be contained, collected and disposed. The approved Collection, Containment, and Disposal Plan shall be implemented prior to commencing any pavement grinding or sawcutting operation.

On-Site Disposal

The Contractor may propose on-site treatment (if necessary) and disposal in accordance with Section 2-03.3(7)C. No on-site disposal will be allowed without the concurrence of the Engineer. On-site disposal activities, if allowed, shall not be located within 300 feet of any surface water bodies, including wetlands.

Submittal Requirements

The Contractor shall submit the Collection, Containment, and Disposal Plan to the Engineer for review and approval 21 calendar days prior to commencing the grinding or sawcutting operation. The plan shall include the following elements:

1. Identify all proposed methods to prevent discharges into the existing drainage systems.
2. Identify the location of all proposed infiltration sites for on-site disposal.
3. Identify the location of all off-site disposal sites, including copies of all applicable permits and approvals for the use of those sites.
4. Contingency plan for potential failures.

Payment

All costs associated with developing the Collection, Containment, and Disposal Plan and collecting, containing, and disposing of pavement grinding and sawcutting residue and slurry shall be included in the unit contract prices for the applicable items of work.

Permits And Licenses

Section 1-07.6 is supplemented with the following:

(March 13, 1995)

No hydraulic permits are required for this project unless the Contractor's operations use, divert, obstruct, or change the natural flow or bed of any river or stream, or utilize any of the waters of the State or materials from gravel or sand bars, or from stream beds.

Load Limits

Section 1-07.7 is supplemented with the following:

(March 13, 1995)

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

Wages

General

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

(February 20, 2007)
The Federal wage rates incorporated in this contract have been established by the Secretary of Labor under United States Department of Labor General Decision No. WA070001.

(April 2, 2007)
Application of Wage Rates For The Occupation Of Landscape Construction
State prevailing wage rates for public works contracts are included in this contract and show a separate listing for the occupation:

Landscape Construction, which includes several different occupation descriptions such as: Irrigation and Landscape Plumbers, Irrigation and Landscape Power Equipment Operators, and Landscaping or Planting Laborers.

In addition. Federal wage rates that are included in this contract may also include occupation descriptions in Federal Occupational groups for work also specifically identified with landscaping such as:

Laborers with the occupation description, Landscaping or Planting, or

Power Equipment Operators with the occupation description, Mulch Seeding Operator.

If Federal wage rates include one or more rates specified as applicable to landscaping work, then Federal wage rates for all occupation descriptions, specific or general, must be considered and compared with corresponding State wage rates. The higher wage rate, either State or Federal, becomes the minimum wage rate for the work performed in that occupation.

Contractors are responsible for determining the appropriate crafts necessary to perform the contract work. If a classification considered necessary for performance of the work is missing from the Federal Wage Determination applicable to the contract, the Contractor shall initiate a request for approval of a proposed wage and benefit rate. The Contractor shall prepare and submit Standard Form 1444, Request for Authorization of Additional Classification and Wage Rate available at http://www.wdol.gov/docs/sf1444.pdf, and submit the completed form to the Project Engineer's office. The presence of a classification wage on the Washington State Prevailing Wage Rates For Public Works Contracts does not exempt the use of form 1444 for the purpose of determining a federal classification wage rate.

Requirements For Nondiscrimination

Section 1-07.11 is supplemented with the following:

(March 6, 2000)
Requirement For Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Contractor's attention is called to the Equal Opportunity Clause and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth herein.

2. The goals and timetables for minority and female participation set by the Office of Federal Contract Compliance Programs, expressed in percentage terms for the Contractor's aggregate work force in each construction craft and in each trade on all construction work in the covered area, are as follows:

Women - Statewide

Timetable	Goal
Until further notice	6.9%

Minorities - by Standard Metropolitan Statistical Area (SMSA)

Spokane, WA:
SMSA Counties:
Spokane, WA 2.8
WA Spokane.
Non-SMSA Counties 3.0
WA Adams; WA Asotin; WA Columbia; WA Ferry; WA Garfield; WA Lincoln, WA Pend Oreille; WA Stevens; WA Whitman.

Richland, WA
SMSA Counties:
Richland Kennewick, WA 5.4
WA Benton; WA Franklin.
Non-SMSA Counties 3.6
WA Walla Walla.

Yakima, WA:
SMSA Counties:
Yakima, WA 9.7
WA Yakima.
Non-SMSA Counties 7.2
WA Chelan; WA Douglas; WA Grant; WA Kittitas; WA Okanogan.

Seattle, WA:
SMSA Counties:
Seattle Everett, WA 7.2
WA King; WA Snohomish.
Tacoma, WA 6.2
WA Pierce.
Non-SMSA Counties 6.1
WA Clallam; WA Grays Harbor; WA Island; WA Jefferson; WA Kitsap; WA Lewis; WA Mason; WA Pacific; WA San Juan; WA Skagit; WA Thurston; WA Whatcom.

Portland, OR:
SMSA Counties:
Portland, OR-WA 4.5
WA Clark.
Non-SMSA Counties 3.8
WA Cowlitz; WA Klickitat; WA Skamania; WA Wahkiakum.

These goals are applicable to each nonexempt Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, or federally assisted project, contract, or subcontract until further notice. Compliance with these goals and time tables is enforced by the Office of Federal Contract compliance Programs.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, in each construction craft and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goal shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Engineer within 10 working days of award of any construction subcontract in excess of $10,000 or more that are Federally funded, at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the Covered Area is as designated herein.

<u>Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)</u>

1. As used in these specifications:

   a. Covered Area means the geographical area described in the solicitation from which this contract resulted;

   b. Director means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. Employer Identification Number means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;

d. Minority includes:

(1) Black, a person having origins in any of the Black Racial Groups of Africa.

(2) Hispanic, a fluent Spanish speaking, Spanish surnamed person of Mexican, Puerto Rican, Cuban, Central American, South American, or other Spanish origin.

(3) Asian or Pacific Islander, a person having origins in any of the original peoples of the Pacific rim or the Pacific Islands, the Hawaiian Islands and Samoa.

(4) American Indian or Alaskan Native, a person having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith effort to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of this Special Provision. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being

performed. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its action. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

    a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

    b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

    c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

    d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union

referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunity and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the U.S. Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of the obligations under 7a through 7p of this Special Provision provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensure that the concrete benefits of the program are reflected in the Contractor's minority and female work-force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrate the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspensions, terminations and cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of this Special Provision, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the government and to keep records. Records shall at least include, for each employee, their name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, the Contractors will not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(April 2, 2007)

Disadvantaged Business Enterprise Condition of Award Participation

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 apply to this contract. This goal is considered a condition of award.

DBE Goals

The Contracting Agency has established a goal in the amount of:

*** Three percent (3%) of the contract total for DBE goals ***

DBE Eligibility

Selection of DBEs

DBEs proposed by the bidder shall be listed as DBEs on the current list of firms certified by the Office of Minority and Women's Business Enterprises (OMWBE.) In absence of being listed, the Contractor may provide written proof from OMWBE documenting that their proposed DBEs are currently certified. A list of firms certified by OMWBE is available from that office and on line through their website (www.omwbe.wa.gov/directory/directory.htm) or by telephone at (360) 704-1181. It shall be the responsibility of the bidder to confirm with OMWBE that the certification of any proposed DBE firm is current and that the firm is certified in the North American Industry Classification System (NAICS) code for the work being proposed. In establishing the certification status of any subcontractor or supplier, the bidder may rely upon the website list or upon any written commitments from OMWBE provided that information is obtained no earlier than 24 hours prior to the time set for bid submittals.

Proposed firms not meeting the specified requirements at the time fixed for the opening of bids will not be credited by the Contracting Agency for the purpose of meeting the goals. The amounts committed to a non-certified firm will not be counted in the evaluation of the bidder's DBE submittal.

In the event that a DBE firm listed is certified at the time of the submission of the bid, but the listed DBE firm is subsequently determined to be ineligible prior to execution of the contract, then the contract execution will proceed and the Contractor will be required to substitute a certified DBE firm for the same amount or to make a good faith effort to do so.

Counting DBE Participation Toward Meeting the Goal and Substitution Requirements

When a DBE firm participates in a contract, only the value of the work actually performed by the DBE will be counted towards the DBE goal.

1. Count the entire amount of the portion of the contract that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE Subcontractor purchases or leases from the Prime Contractor or its affiliates, unless the Prime Contractor is also a DBE). Work performed by a DBE, utilizing resources of the Prime Contractor or its affiliates will not be counted toward DBE goals. In very rare situations, a DBE firm may utilize equipment and/or personnel from a non-DBE firm other than the Prime Contractor or its affiliates. Should this situation arise, the arrangement must be short-term and must have prior written approval from the Contracting Agency. The arrangement must not erode a DBE firm's ability to perform a Commercially Useful Function (See discussion of CUF, below).

2. Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance.

3. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward the DBE goal only if the DBE's lower tier Subcontractor is also a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goal. The DBE firm may further subcontract to lower tier DBE subcontractors to the extent specified by section 1-08.1.

4. When a non-DBE subcontractor further subcontracts to a lower-tier subcontractor or supplier who is a certified DBE, then that portion of the work further subcontracted may be counted toward the DBE goal, so long as it is a distinct clearly defined portion of the work of the subcontract that the DBE is performing in a commercially useful function with its own forces.

5. Continue to count the work subcontracted to a decertified DBE firm after decertification, provided the prime contractor had a subcontract in force before the decertification and the prime contractor's actions did not influence the DBE's decertification.

DBE Prime Contractor

A DBE prime Contractor may only count the work performed with its own forces and the work performed by DBE Subcontractors and DBE suppliers. In the event that the DBE Prime contractor becomes decertified during the contract, for reasons other than graduation from the program, the portion of the work performed after the decertification will not count toward the goal. If this work is part of the Condition of Award the prime will be required to meet the Condition of award and may do so by increasing the dollars and work to another DBE firm in an amount equal to that which can not be counted, utilize the dollars committed/paid to a non-COA DBE who is already on the project, or make a good faith effort to do so. If the reason for decertification is for graduation, the work of the decertified DBE prime contractor may continue to be counted toward the goal.

Joint Venture

When a DBE performs as a participant in a joint venture, only that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work that the DBE performs with its own forces will count toward COA DBE goal In the event that the DBE Joint Venture contractor becomes decertified during the contract, for reasons other than graduation from the program, the portion of the work performed after the decertification will not count toward the DBE goal. If this work is part of the Condition of Award the Joint Venture will be required to meet the Condition of award and may do so by increasing the dollars and work to another DBE firm in an amount equal to that which can not be counted, utilize the dollars committed/paid to a non-COA DBE who is already on the project, or make a good faith effort to do so. If the reason for decertification is for graduation the work of the decertified DBE Joint Venture contractor may continue to be counted toward the goal.

Changes in the Quantity of Work

Owner initiated Change Orders

In the event the Contracting Agency reduces quantities or deletes work items that impact a DBE's work and insufficient work remains on the contract, the

Contracting Agency may relieve the prime contractor from attainment of that portion of the goal.

Original Quantity Under runs

In the event that work committed to a DBE firm as part of the COA, under runs the original planned quantities and that work is completed according to the contract, the contractor shall not be required to substitute work for the portion of the COA not achieved.

Contractor-Initiated Proposals—General

1. Reductions or Deletions

   Any reduction or deletion of Condition of Award DBE work that is proposed by the Contractor under this provision shall not be permitted without the express prior written consent of the Contracting Agency, including concurrence by WSDOT/OEO, which shall have the discretion to deny approval.

   The Contractor must notify and obtain written approval from the contracting agency prior to replacing a DBE or making any change in the participation. Approval for replacement will be granted only if it is demonstrated that the DBE is unable or unwilling to perform. The Contractor must make every good faith effort to find another certified DBE subcontractor to substitute for the original DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the original DBE, to the extent needed to meet the contract goal.

   Any deviation from the DBE condition-of-award letter or contract specifications must be approved by Change Order issued by the Contracting Agency. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount of condition-of-award to the contract.

   In addition to the above requirements for reductions in the Condition of Award, additional requirements apply to the two cases of Contractor-Initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

   a. That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the Condition of Award agreement; or

   b. That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or

c. That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonably competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

2. Additions
As stated above, any change in the condition of award will be evidenced by a change order. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request to Sublet shall be submitted in accordance with Section 1-08.1.

If the commitment of work is in the form of additional tasks assigned to an existing subcontractor, then a new Request to Sublet shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed (in writing) to the change.

Commercially Useful Function
Payments to a DBE firm will count toward DBE goals only if the DBE is performing a commercially useful function on the contract.

1. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, installing (if applicable) and paying for the material itself. Two party checks are not allowed.

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

Trucking
Use the following factors in determining whether a DBE trucking company is performing a commercially useful function:

1. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is listed on a particular contract.

2. The DBE must itself own and, with its own workforce, operate at least one fully licensed, insured, and operational truck used on the contract.

3. The DBE receives credit only for the total value of the transportation services it provides on the contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

4. For purposes of this paragraph a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the

leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

5. The DBE may lease trucks from another DBE firm and may enter an agreement with an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE or employs a DBE owner-operator receives credit for the total value of the transportation services the lessee DBE provides on the contract.

6. The DBE may also lease trucks from a non-DBE firm and may enter an agreement with an owner-operator who is a non-DBE. The DBE who leases trucks from a non-DBE or employs a non-DBE owner-operator is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.

7. In any lease or owner-operator situation, as described in paragraphs 5 & 6 above, the following rules shall apply:

   - A written lease/rental agreement on all trucks leased or rented, showing the true ownership and the terms of the rental must be submitted and approved by the Contracting Agency prior to the beginning of the work. The agreement must show the lessor's name, trucks to be leased, and agreed upon amount or method of payment (hour, ton, or per load). All lease agreements shall be for a long-term relationship, rather than for the individual project. Does not apply to owner-operator arrangements.

   - Only the vehicle, (not the operator) is leased or rented. Does not apply to owner-operator arrangements.

8. In order for DBE project goals to be credited, DBE trucking firms must be covered by a subcontract or a written agreement approved by the Contracting Agency prior to performing their portion of the work.

Expenditures paid to other DBEs

Expenditures paid to other DBEs for materials or supplies may be counted toward DBE goals as provided in the following:

Manufacturer

1. Counting
   If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies toward DBE goals.

2. Definition
   To be a manufacturer, the firm operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

3. In order to receive credit as a DBE manufacturer, the firm must have received an "on-site" review and been approved by WSDOT-OEO to operate as a DBE Manufacturing firm prior to bid opening on any USDOT federally-assisted contract. Use of a DBE manufacturer that has not received an on-site review and approval by WSDOT-OEO prior to bid opening will result in the bid being declared non-responsive. To schedule a review, the manufacturing firm must submit a written request to WSDOT/OEO and may not receive credit towards DBE participation until the completion of the review. Once a firm's manufacturing process has been approved in writing, it is not necessary to resubmit the firm for approval unless the manufacturing process has substantially changed. Information on approved manufacturers (per contract) may be obtained from WSDOT-OEO.

Regular Dealer

1. Counting
   If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies will count toward DBE goals.

2. Definition
   a) To be a regular dealer, the firm must own, operate or maintain a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. It must also be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

   b) A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business, as provided elsewhere in this specification, if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

   c) Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers.

3. Regular dealer status is granted on a contract-by-contract basis. To obtain regular dealer status, a formal written request must be made by the interested supplier (potential regular dealer) to WSDOT/OEO. OEO must be in receipt of this request at least seven (7) calendar days prior to bid opening. Included in the request shall be a full description of the project, type of business operated by the DBE, and the manner the DBE will operate as a regular dealer on the specific contract. Rules applicable to regular dealer status are contained in 49 CFR Part 26.55.e.2. Once the request is reviewed by WSDOT-OEO, the DBE supplier requesting it will be notified in writing whether regular dealer status was approved. DBE

firms that are approved as regular dealers for a contract (whenever possible) will be listed on the WSDOT Internet Homepage at: www.wsdot.wa.gov/biz/contaa/ prior to the time of bid opening. In addition, bidders may request confirmation of the DBE supplier's approval to operate as a regular dealer on a specific contract by writing the Office of Equal Opportunity, Washington State Department of Transportation, P.O. Box 47314, Olympia, WA 98504-7314 or by phone at (360) 705-7085. Use of a supplier that has not received approval as a regular dealer prior to bid opening will result in the bid being declared nonresponsive. (unless the contribution of the regular dealer was not necessary to meet the project goal).

Materials or Supplies Purchased from a DBE

With respect to materials or supplies purchased from a DBE who is neither a manufacturer nor a regular dealer, the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site may be counted toward the goal. No part of the cost of the materials and supplies themselves may be applied toward DBE goals.

DBE Utilization Certification

To be eligible for award of the contract, the bidder must properly complete and submit a DBE Utilization Certification which has been made a part of the bidder's formal bid proposal. The Certification will be used by the Contracting Agency in determining whether the bidder's bid proposal satisfies the DBE contract requirements.

For each DBE described in the Certification, the bidder shall state the project role and work item in which that DBE will participate. A general description of the work to be performed by the DBE shall be included. If a DBE will perform a partial item of work, the bidder shall also include a dollar amount for each partial item of work. The bidder shall also include a dollar amount for each DBE listed in the Certification that will be applied towards meeting or exceeding the assigned DBE contract goal.

In the event of arithmetic errors in completing the Certification, the amount listed to be applied towards the goal for each DBE shall govern and the DBE total shall be adjusted accordingly. The information and commitments demonstrated in the Certification shall become a condition of any subsequent award of a contract to that bidder and the Certification itself shall become a part of the subsequent contract.

The Contracting Agency shall consider as non-responsive and shall reject any bid proposal submitted that does not contain a DBE Certification or contains a DBE Certification that fails to demonstrate that the bidder will meet the DBE participation requirements in one of the manners permitted by the contract as described below.

Selection of Successful Bidder/Good Faith Efforts

The successful bidder shall be selected on the basis of having submitted the lowest responsive bid, which demonstrates good faith effort to achieve the goal. Good faith efforts must be provided with the bid proposal. The first step in demonstrating good faith efforts is to document, through the DBE Utilization Certification, that the bidder has obtained enough DBE participation to meet or exceed the assigned DBE goal. If the bidder is unable to meet the goal as demonstrated above, the bidder

shall supply documentation in addition to the DBE Utilization Certification of their good faith efforts to meet the DBE assigned contract goal. The additional documentation, if required, must be provided with the bid proposal.

Based upon all of the relevant documentation submitted with the bid, the Contracting Agency shall determine whether the bidder has made a sufficient good faith effort to seek DBE participation. The Contracting Agency will make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. The quality, quantity, and intensity of the different kinds of efforts that the bidder has made will be considered. A determination will be made whether the efforts employed by the bidder were those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere ***pro forma*** efforts will not be considered to be good faith efforts to meet the DBE contract requirements.

The following is a list of types of actions, which will be considered as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases:

1. Attendance by the bidder at any pre-solicitation or pre-bid meetings that were scheduled by the Contracting Agency to inform DBEs of contracting and subcontracting or material supply opportunities available on the project;

2. Contacting local Tribes, Tribal Employment Rights Offices (TERO) concerning the subcontracting or supply opportunities in sufficient time to allow the enterprises to participate effectively;

3. Selection by the bidder of specific economically feasible units of the project to be performed by DBEs in order to increase the likelihood of participation by DBEs even if the bidder preferred to perform these work items as the prime contractor;

4. Advertising by the bidder in general circulation, trade association minority and trade oriented, women focus publications, concerning the subcontracting or supply opportunities;

5. Providing written notice from the bidder to a reasonable number of specific DBEs, identified from the OMWBE Directory of Certified Firms for the selected subcontracting or material supply work, in sufficient time to allow the enterprises to participate effectively;

6. Follow-up by the bidder of initial solicitations of interest by contacting the DBEs to determine with certainty whether they were interested. Documentation of this kind of action may include the information outlined below:

    a. The names, addresses, telephone numbers of DBEs who were contacted, the dates of initial contact, and whether initial solicitations of interest were followed-up by contacting the DBEs to determine with certainty whether the DBEs were interested;

b. A description of the information provided to the DBEs regarding the plans, specifications, and estimated quantities for portions of the work to be performed;

c. Documentation of each DBE contacted but rejected and the reason(s) for that rejection;

7. Providing, to interested DBEs, adequate information about the plans, specifications, and requirements for the selected subcontracting or material supply work;

8. Negotiating in good faith with the DBE firms, and not, without justifiable reason, rejecting as unsatisfactory, bids that are prepared by any DBE;

9. Advertising and making efforts to obtain DBE participation that were reasonably expected to produce a level of participation sufficient to meet the goal or requirements of the Contracting Agency;

10. Making any other efforts to obtain DBE participation that were reasonably expected to produce a level of participation sufficient to meet the goal or requirements of the Contracting Agency;

11. Using the services of minority community organizations, minority contractor groups, local, state, and federal minority business assistance offices and other organizations identified by WSDOT and advocates for disadvantaged, minority, and women businesses that provide assistance in the recruitment and placement of disadvantaged, minority, and women business enterprises; and

12. Using DBE Supportive Services by contacting the Office of Minority and Women's Business Enterprises DBE Supportive Services Offices:

Seattle:	(206) 553-7356
Tacoma:	(253) 680-7393

If, after review of the documentation provided in the bidder's proposal, the Contracting Agency determines that a good faith effort was made to secure DBE participation, the assigned DBE goal will not be reduced to the bidder's partial commitment. However, the bidder will be formally advised in the award letter that the partial commitment will satisfy the terms of the contract and there will be no adverse effect on the Contractor as a result of the reduced attainment.

Should the low and otherwise responsive bidder fail to meet the DBE participation requirements in one of the manners provided in the proposed contract, its bid proposal will be rejected as non-responsive and the next lowest responsive bid accepted unless the Contracting Agency chooses to reject all bids.

Administrative Reconsideration

1. A bidder has the right to reconsideration in the event its bid has been found to be nonresponsive due to a failure to make adequate good faith efforts to meet the DBE goal requirements of this specification. The bidder must request

reconsideration within five working days of notification of being nonresponsive or forfeit the right to reconsideration.

2. The Contracting Agency's decision on reconsideration of the bidders good faith efforts shall be made by an official who did not take part in the original determination that the bidder failed to meet the goal or make adequate good faith efforts to do so.

3. The bidder shall have the opportunity to meet in person with the official for the purpose of setting forth the bidder's position as to why the documents provided with its bid proposal supported adequate good faith efforts to meet the DBE contract requirements. The bidder's support for its position must be based on its bid submittal. The bidder may provide further explanation/clarification of the information and materials in the submittal, but no new materials or information will be considered by the official in reaching a decision on reconsideration.

4. The official shall send the bidder a written decision on reconsideration, explaining the basis for the finding as to whether the bidder's bid submittal supported adequate good faith efforts to meet the DBE contract requirements.

The Contracting Agency has been advised that the United States Department of Transportation will not accept appeals concerning results of the reconsideration process.

Procedures Between Award and Execution

After award of the contract, the successful bidder shall provide the additional information described below. A failure to comply shall result in the forfeiture of the bidder's proposal bond or deposit.

The Contracting Agency will notify the successful bidder of the award of the contract in writing and will include a request for a further breakdown of the DBE information. After award and prior to execution of the contract, the bidder shall submit the following items:

(1) Additional information for all successful DBE's as shown on the DBE Utilization Certification:

- Correct business name, federal employee identification number (if available), and mailing address.
- List of all bid items assigned to each successful DBE firm, including unit prices and extensions.
- Description of partial items (if any) to be sublet to each successful DBE firm specifying the distinct elements of work under each item to be performed by the DBE and including the dollar value of the DBE portion.

Total amounts shown for each DBE shall not be less than the amount shown on the Utilization Certification. This submittal, showing the DBE work item breakdown, when accepted by the Contracting Agency and resulting in contract execution, shall become a part of the contract. A breakdown that does not conform to the DBE Utilization Certification or that demonstrates a lesser amount of DBE participation than that included

in the Certification will be returned for correction. The contract will not be executed by the Contracting Agency until a satisfactory breakdown has been submitted. A breakdown that conforms to the DBE Utilization Certification but demonstrates a greater total amount of participation than that included in the Certification will be accepted and the Condition of Award will be adjusted accordingly.

(2) A list of all firms who submitted a bid or quote in an attempt to participate in this project whether they were successful or not. Include the correct business name, federal employer identification number (optional) and a mailing address.

The firms identified by the Contractor may be contacted to solicit general information as follows:

1. age of the firm

2. average of its gross annual receipts over the past three years

Procedures After Execution

Reporting

The Contractor shall submit a "Quarterly Report of Amounts Credited as DBE Participation" (actual payments) on a quarterly basis for any calendar quarter in which DBE work is accomplished or upon completion of the project, as appropriate. The quarterly reports are due on January 20th, April 20th, July 20th, and October 20th of each year. Or, the Contractor has the option of submitting actual DBE payment data to the Contracting Agency on a monthly basis using the Contract Monitoring and Tracking System (CMATS) through the Bizweb application located at http://www.omwbe.wa.gov/bizwebatwashington. Use of CMATS will become a requirement for all contractors effective January 7, 2008. The dollars reported will be in accordance with the **"Counting DBE Participation"** section of this specification.

In the event that the payments to a DBE have been made by an entity other than the Prime Contractor (as in the case of a lower-tier subcontractor or supplier), then the Prime Contractor shall obtain the quarterly report, including the signed affidavit, from the paying entity and submit the report to the Contracting Agency.

Damages for Noncompliance

When a Contractor violates the DBE provisions of the contract, the Contracting Agency may incur damages. These damages consist of additional administrative costs including, but not limited to, the inspection, supervision, engineering, compliance, and legal staff time and expenses necessary for investigating, reporting, and correcting violations as well as loss of federal funding. Damages attributable to a Contractor's violations of the DBE provisions may be deducted from progress payments due to the Contractor or from retainage withheld by the Contracting Agency as allowed by RCW 60.28.021. Before any money is withheld, the Contractor will be provided with a notice of the basis of the violations and an opportunity to respond.

The Contracting Agency's decision to recover damages for a DBE violation does not limit its ability to suspend or revoke the Contractor's pre-qualification status or seek other remedies as allowed by federal or state law. In appropriate circumstances, the Contracting Agency may also refer the Contractor to state or federal authorities for additional sanctions.

Required Disadvantaged Business Enterprise Provisions

The Contractor 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 contracts, which contain funding assistance from the United States Department of Transportation. 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 Contracting Agency deems appropriate.

If the Contractor does not comply with any part of its contract as required under 49 CFR part 26, and/or any other applicable law or regulation regarding DBE, the Contracting Agency may withhold payment, suspend, or terminate the contract, and subject the Contractor to civil penalties of up to ten percent of the amount of the contract for each violation. In the case of WSDOT contracts, repeated violations, exceeding a single violation, may disqualify the Contractor from further participation in WSDOT contracts for a period of up to three years. An apparent low bidder must be in compliance with these contract provisions as a condition precedent to the granting of a notice of award by the Contracting Agency. The Contractor is entitled to request an adjudicative proceeding with respect to the Contracting Agency's determination of contract violation and assessed penalties by filing a written application within thirty days of receipt of notification. The adjudicative proceeding, if requested, will be conducted by an administrative law judge pursuant to the procedures set forth in RCW 34.05 and Chapter 10.08 of the Washington Administrative Code.

Payment

Compensation for all costs involved with complying with the conditions of this specification and any associated DBE requirements is included in payment for the associated contract items of work.

(March 13, 1995)
Federal Agency Inspection

Section 1-07.12 is supplemented with the following:

Required Federal Aid Provisions

The Required Contract Provisions Federal Aid Construction Contracts (FHWA 1273) and the amendments thereto supersede any conflicting provisions of the Standard Specifications and are made a part of this contract; provided, however, that if any of the provisions of FHWA 1273, as amended, are less restrictive than Washington State Law, then the Washington State Law shall prevail.

The provisions of FHWA 1273, as amended, included in this contract require that the Contractor insert the FHWA 1273 and amendments thereto in each subcontract, together with the wage rates which are part of the FHWA 1273, as amended. Also, a clause shall be included in each subcontract requiring the subcontractors to insert the FHWA 1273 and amendments thereto in any lower tier subcontracts, together with the

wage rates. The Contractor shall also ensure that this section, REQUIRED FEDERAL AID PROVISIONS, is inserted in each subcontract for subcontractors and lower tier subcontractors. For this purpose, upon request to the Project Engineer, the Contractor will be provided with extra copies of the FHWA 1273, the amendments thereto, the applicable wage rates, and this Special Provision.

Temporary Water Pollution/Erosion Control

Section 1-07.15 is supplemented with the following:

(******)

Surface/Rain Water

The Contractor shall manage all surface and rain water generated and collected within the work zone. Surface water shall not enter excavation pits.

Protection And Restoration Of Property

Private/Public Property

Section 1-07.16(1) is supplemented with the following:

(******)

Staging Area

Within the project limits are sites that the Contractor may wish to use as staging areas. The Contractor shall submit a Staging Plan to the Engineer for approval a minimum of 10 working days prior to use. This plan shall indicate, as a minimum, the following:

1. Secondary containment, if needed
2. Fencing required
3. Grading
4. Parking areas for Contractor's employees and agents
5. Structures
6. Temporary water pollution/erosion control measures
7. Three parking spaces for the Contracting Agency

The area to be used shall be staked by the Contractor for approval by the Engineer.

The use of a site within the Right-of-Way is a privilege granted to the Contractor upon request. It is not a right under this contract. Ownership and control of the site shall remain with the State and the Contractor shall vacate the site within *** 2 *** working days following written notice by the Engineer to vacate.

Vegetation Protection and Restoration

(NWR May 22, 2000)

The fourth sentence of the third paragraph of Section 1-07.16(2) is revised to read:

All roots that are damaged shall be pruned with a sharp saw or pruning shear.

Archaeological And Historical Objects

Section 1-07.16(4) is supplemented with the following:

(******)

Description

The project area contains both archaeological and historical objects which have significant historic importance. The Contractor shall incorporate archaeological investigations for four work areas to comply with Section 106 of the National Historic Preservation Act legal requirements.

Construction Requirements

The Contractor shall submit, in accordance with Sections 2-09.3 and 6-01.9, a shoring plan and work area excavation plan prior to archaeology investigations, to be approved by the Engineer.

The Contractor shall follow direction given by the Engineer, through coordination with the geoarchaeologist, for the duration of the archaeological investigation.

Following the installation of shoring, two work areas shall be opened for concurrent investigations. All archaeological investigations shall be completed within a maximum of 10 working days.

The work area dimensions and locations of the archeological investigation are as follows:

1. 93W, SE quadrant, 10.5 x 12 x 7.72 feet deep
2. 93E, NW quadrant, 10.5 x 12 x 6.86 feet deep
3. 94W, NE quadrant, 12 x 7.5 x 9.91 feet deep
4. 94E, NW quadrant, 12 x 7.5 x 9.6 feet deep

The Contractor shall excavate substrate material using a backhoe or a mechanical excavator with a flat-nosed bucket. The Contractor shall furnish on site a toothed bucket and chainsaw. This equipment shall be used in the event that either vertical piles, relatively intact railroad trestle components, or other large objects are encountered in the investigation. The Contractor shall operate equipment at the pace and graduated depths directed by the Engineer.

The Contractor shall comply with requirements specified in the subsection **Removal and Disposal of Contaminated Material** of the Special Provision **EARTHWORK.**

Measurement

Exploratory operations and salvaging of the objects as ordered by the Engineer will be paid by force account as provided in Section 1-09.6. If the discovery and salvaging activities require the Engineer to suspend the Contractor's work, any adjustment in time will be determined by the Engineer pursuant to Section 1-08.8.

Payment

Payment will be made in accordance with Section 1-04.1 for the following:

"Archaeological and Historical Salvage", force account.

To provide a common basis for all bidder, the Contracting Agency has entered an amount for the item "Archaeological and Historical Salvage" in the Proposal to become a part of the total bid by the Contractor.

Section 1-07.16 is supplemented with the following:

(******)

Settlement Monitoring

The Contractor shall perform work in a manner such that settlements of existing adjacent structures or lateral movements of existing adjacent structures, or both, do not exceed 0.25 inches.

The Contracting Agency will perform settlement and lateral displacement monitoring before and during the Contract work. The Contracting Agency will provide the results of the monitoring to the Contractor.

If the measurements taken by the Contracting Agency indicate that 75 percent of the limits specified in this Special Provision have been reached, the Contractor shall take the following actions:

1. Take immediate steps to stop the cause of displacement.
2. Develop a corrective actions plan within 24 hours and submit to the Engineer for review and approval.
3. Implement approved corrective actions.
4. Verify success of corrective actions.

If corrective actions are not successful or measurements reach the limits listed in this Special Provision, the Contractor shall cease all operations and repeat the process outlined above. The Engineer will determine if corrective actions will require modification of construction procedures.

Utilities And Similar Facilities

Section 1-07.17 is supplemented with the following:

(******)

The Contractor shall call the utilities underground location center (One Call Center) not less than two nor more than ten business days before the scheduled date for commencement of excavation which may affect underground utility facilities, unless otherwise agreed upon by the parties involved. A business day is defined as any day other than Saturday, Sunday, or a legal local, State, or Federal holiday. The telephone number for the One Call Center for this project may be obtained from the Engineer.

No excavation shall begin until all known facilities in the vicinity of the excavation area have been located and marked.

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

Private:
Comcast Cable – FO & CATV / ATTACHED TO VIADUCT
Ed Calamaro – FO
Outside Plant Engineer
Tel: 425.263.5344

Cell: 425.766.2928
Fax: 425.263.5352
Address: 1525 75th Street SW, Suite 200
Everett, WA 98203

CATV – Mel Hara
Coax Network Engineer
Tel: 425.263.5349
Cell: 206.255.9166
Fax: 425.263.5352
Address: 1525 75th Street SW, Suite 200
Everett, WA 98203

Integra Telecom – *Formally Electric Lightwave, Inc. (ELI)* – FO / ATTACHED TO VIADUCT
Bob Robertson
Senior Outside Plant Manager
Tel: 206.812.3300
Cell: 425.922.1477
Fax: 206.812.0298
Address: 1218 3rd Avenue, Suite 915
Seattle, WA 98101

Millennium Digital Media (MDM) – CATV & FO / ATTACHED TO VIADUCT
Jim Biggs
Construction Supervisor
Tel: 425.747.4600 ext. 1511
Cell: 206.786.8720
Fax: 206.721.2408
Address: 4316 S. 104th Place
Seattle, WA 98178

Millennium Digital Media (MDM) – CATV & FO / ATTACHED TO VIADUCT
Steve Miller
Project Manager
Tel: 425.747.4600 x 1505
Cell: 206.786.8706
Fax: 206.721.2408
Address: 4316 S. 104th Place
Seattle, WA 98178

Puget Sound Energy (PSE) – NATURAL GAS / BURIED
Krystal Dalton
Project Manager
Tel: 425.462.3488
Cell: 206.601.0947
Address: P.O. Box 90868 EST-05E
Bellevue, WA 98009-0868

Sprint Nextel – FO / BURIED
John Cruz
Cable Project Engineer

Tel: 253.476.6655
Cell: 360.402.4159
Fax: 253.476.6663
Address: 2606 70th Ave. E., Suite 102
Fife, WA 98424

XO Communications – FO / ATTACHED TO VIADUCT
Al Bendix
Director, Infrastructure Implementation
Tel: 206.315.6378
Cell: 206.255.9758
Address: 1000 Denny Way, Suite 200
Seattle, WA 98109

Verizon Business
Projects- WA State
Mike Vandenberg
Correspondence
E-mail: Michael.vandenberg@verizonbusiness.com

Public:
Seattle City Light – Power – Buried and Attached to Viaduct
John Nierenberg
Acting Director of Transmission and Distribution Planning
Tel: 206.684.3387
Address: PO Box 34023
Seattle, WA 98124-4023

Seattle Public Utilities (SPU)
Gavin Patterson
Project Manager
Tel: 206.684.0126
Address: PO Box 34018
Seattle, WA 98124-4018

King County – Sanitary Sewer
Barbara Badger
Compliance Investigator
Tel: 206.263.3024
Cell: 206.427.4563
Address: 130 Nickerson Street, Suite 200
Seattle, WA 98109-1658

All known utilities within the project limits have been identified in the Plans.

Subsurface Utility Engineering (SUE)

Subsurface Utility Engineering (SUE) has been used to identify buried utilities within the project limits. The three levels of SUE are defined as:

Characterizing is identifying the type and approximate two-dimensional positions of all buried utilities based on available information obtained without uncovering, measuring, or other verification.

All utilities in the Plans have been characterized.

Designating is identifying the type and approximate two-dimensional positions of all the buried utilities by means of geophysical prospecting equipment. The following have been designated:

*** Storm Water, Fiber Optic, Power, Gas, and Steam ***

Locating is exposing the buried utilities and determining their exact three-dimensional positions by means of nondestructive air-vac equipment.

The SUE data is available for inspection at the Project Engineer's office.

In the event of a discrepancy between the information provided by SUE and the utilities underground location center:

1. The SUE information for designated or located utilities shall be considered the most accurate, and

2. The Contractor shall immediately notify the Engineer of the conflict.

(******)

Seattle City Light Requirements

The Contractor shall comply with electric utility clearance requirements of the utility owner, Seattle City Light (SCL). The Contractor shall become thoroughly familiar with the electrical environment within the project site and with the relevant work. The Contractor shall inform all employees of the requirements provided by SCL to ensure adherence by all workers to both protect utilities and maintain a safe work zone.

Applicable Electrical Codes

Work within the vicinity of electrical transmission and distribution lines shall be performed in accordance with the current applicable provisions of the following codes:

1. State of Washington General Safety and Health Standards, Part L Electrical, Chapter 296-24-960 WAC

2. State of Washington Electrical Workers Safety Rules, Chapter 296-45 WAC

3. National Electric Code

4. National Electric Safety Codes

5. SCL Material Standards and SCL Construction Guidelines

6. City of Seattle Electrical Code Supplement

Copies of items 5 and 6 are available at the Project Engineer's office for the prospective bidder's inspection.

Electrical Safety Observer

A SCL Electrical Safety Observer (ESO) shall be required at all times while work is performed in the vicinity of electric transmission and distribution lines. The Contractor shall adhere to the requirements of the ESO while working within the specified distance of an energized electrical transmission or distribution system.

The following restrictions apply to all work:

1. The Contractor shall maintain a minimum clearance of ten feet from all electric transmission and distribution lines throughout the work area. The minimum clearance of less than ten feet will only be allowed with prior authorization by SCL through the use of an SCL approved construction shield.

2. At least 7 working days in advance of the need to work on or near any SCL electrical transmission or distribution system, to work on or within any other SCL electrical structure or facility, or to enter a SCL vault, the Contractor shall notify the Engineer to contact Pete Jerochim at SCL, (206) 423-1944, to schedule an ESO.

3. Whenever construction excavation is within the minimum clearance of underground electrical distribution and transmission facilities, the Contractor shall notify SCL in writing at the address below at least 3 working days in advance of the excavation. The Contractor shall furnish a copy of the written notice to the Engineer. The Contractor shall contact SCL by phone at (206) 386-4200.

   Address: Seattle Municipal Tower
   700 5th Ave, #3300
   PO Box 34023
   Seattle, WA 98124-4023

Damage to Electric Transmission or Distribution Lines

If, at any time during construction, damage occurs to the electric transmission or distribution lines, work shall immediately stop and the Contractor shall immediately inform the Engineer and SCL of the damage. Work shall not continue until SCL has inspected and repaired the damage and a replacement shield has been designed, approved and constructed. Any damage shall be repaired to the satisfaction of the Engineer and SCL at no additional cost to the Contracting Agency

Construction Shield

The Contractor shall design, furnish, and install an SCL approved construction shield to allow reduced required clearance near the existing aerial suspended electric transmission and distribution lines on the Alaskan Way Viaduct.

The Contractor shall submit a plan in accordance with Section 6-01.9 for the construction shield to the Engineer a minimum of 30 days prior to installation. The Engineer will forward the Contractor's plan for review and approval by SCL. The shield shall be constructed of a minimum of 0.25 inch thick steel plate, meeting applicable ASTM or ANSI specification.

The construction shield shall be removed when no longer required.

Payment

Payment will be made in accordance with Section 1-04.1 for the following:
"Construction Shield", lump sum.

The lump sum contract payment shall be full compensation for all costs for performing the work as specified, including designing an approved plan, furnishing and installing materials, labor, and equipment required for an SCL approved construction shield.

Public Convenience And Safety

Construction Under Traffic

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

(April 2, 2007)
Work Zone Clear Zone

The Work Zone Clear Zone (WZCZ) applies during working and nonworking hours. The WZCZ applies only to temporary roadside objects introduced by the Contractor's operations and does not apply to preexisting conditions or permanent Work. Those work operations that are actively in progress shall be in accordance with adopted and approved Traffic Control Plans, and other contract requirements.

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

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

The Contractor's nonessential vehicles and employees private vehicles shall not be permitted to park within the WZCZ at any time unless protected as described above.

Deviation from the above requirements shall not occur unless the Contractor has requested the deviation in writing and the Engineer has provided written approval.

Minimum WZCZ distances are measured from the edge of traveled way and will be determined as follows:

Posted Speed	Distance From Traveled Way (Feet)
35 mph or less	10 *
40 mph	15
45 to 55 mph	20
60 mph or greater	30

* or 2-feet beyond the outside edge of sidewalk

Minimum Work Zone Clear Zone Distance

(******)
Lane closures are subject to the following restrictions:

*** No lane closures will be allowed on Alaskan Way, Yesler Way, and Columbia Street without approval of the Engineer. ***

(NWR March 6, 2000)
Construction vehicles using a closed traffic lane shall travel only in the normal direction of traffic flow unless expressly allowed in an approved traffic control plan. Construction vehicles shall be equipped with flashing or rotating amber lights.

Work over an open lane of traffic will not be allowed, unless a plan for the protection of the traveling public from debris falling onto the traveled way is approved by the Engineer. This protection shall remain in place during construction and meet minimum vertical clearance for the highway.

Controlled Access
No special access or egress will be allowed the Contractor other than normal legal movements or as shown in the Plans.

(March 6, 2000)
Pedestrian Access
The Contractor shall keep all pedestrian routes and access points (including sidewalks, and crosswalks when located within the project limits) open and clear at all times unless permitted otherwise by the Engineer in an approved traffic control plan.

(NWR February 14, 2005)
Signs and Traffic Control Devices
All signs and traffic control devices for the permitted closures shall only be installed during the specified hours. Construction signs, if placed earlier than the specified hours of closure, shall be turned or covered so as not to be visible to motorists.

Hours of Darkness
The Contractor shall, at no additional cost to the Contracting Agency, make all arrangements for operations during hours of darkness. Flagger stations shall be illuminated using a minimum 150 watt floodlight.

Lighting used for nighttime work shall, whenever possible, be directed away from, or shielded from, residences and oncoming traffic.

(NWR March 6, 2000)
Advance Notification
The Contractor shall notify the Engineer in writing 5 working days in advance of any lane closure, sidewalk closure, or both.

Construction and Maintenance of Detours
Section 1-07.23(2) is supplemented with the following:

(NWR March 6, 2000)
Detour routes shall be provided as shown in the Plans.

PROSECUTION AND PROGRESS

Subcontracting
Section 1-08.1 is supplemented with the following:

(October 12, 1998)
Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed. This certification shall also guarantee that these subcontract agreements include all the documents required by the Special Provision **Federal Agency Inspection**.

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

1. Request to Sublet Work (Form 421-012), and
2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (Form 420-004).

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

Prosecution Of Work

(August 7, 2006)
The first sentence of Section 1-08.4 is revised to read:

The Contractor shall begin work no earlier than *** October 1, 2007 and no later than October 10, 2007 ***.

(******)
The following work shall be completed before November 22, 2007 to be granted suspension of working days:

1. Construct Temporary Waterfront Pedestrian/Bicycle Facility
2. Verify Underground Utility Locations by Potholing
3. Complete Water Line work for Thrust block collar
4. Remove abandoned Railroad Rails as shown in the Plans
5. Clear and grub trees and vegetation
6. Install 6 inch diameter Drain Pipe as shown in the Plans
7. Repair Pavement
8. Stripe parking spaces for public use

Installing verification micropiles before suspension is optional.

There shall be no on-site work between November 22, 2007 and January 1, 2008.

Time For Completion

(March 13, 1995)
Section 1-08.5 is supplemented with the following:

This project shall be physically completed within *** 108 *** working days.

Suspension of Work

Section 1-08.6 is supplemented with the following:

(******)
Contract time will be suspended between November 22, 2007 and January 1, 2008.

Work shall be scheduled such that all areas are restored for public use by the end of shift on November 21, 2007. This includes backfilling excavations, paving over excavations with HMA, striping parking stalls, restoring pedestrian facilities, and removing all temporary construction fencing. No project equipment or materials will be allowed on the work site during the suspension.

Contract time will resume January 2, 2008 or as approved in writing by the Engineer.

TEMPORARY TRAFFIC CONTROL

Traffic Control Management

General

(August 2, 2004)
Section 1-10.2(1) is supplemented with the following:

The Traffic Control Supervisor shall be certified by one of the following:

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

Evergreen Safety Council
401 Pontius Ave. N.

Seattle, WA 98109
1-800-521-0778 or
(206) 382-4090

Measurement

(August 2, 2004)
Section 1-10.4(1) is supplemented with the following:

The proposal contains the item "Project Temporary Traffic Control," lump sum. The provisions of Section 1-10.4(1) shall apply.

DIVISION 2
EARTHWORK

CLEARING, GRUBBING, AND ROADSIDE CLEANUP

Description
Section 2-01.1 is supplemented with the following:

(March 13, 1995)
Clearing and grubbing on this project shall be performed within the following limits:

Remove trees and vegetation between STA. 83+24.0 and STA. 83+93.50, as shown in the Plans.

REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Construction Requirements
Section 2-02.3 is supplemented with the following:

(February 17, 1998)
Removal of Obstructions

Removal Item	Amount	Unit
Asphalt Concrete / PCC Pavement	2850	S.F
Abandoned Rails – 2	212	L.F
Precast Concrete Curb	132	L.F
Portion of Bridge Drains	164	L.F
Buried Irrigation System	52	L.F
Abandoned 6" Diam. Sanitary Sewer	52	L.F
Existing 6" Diam. Storm Drain	52	L.F
Parking Meter Foundations	3	EA

(******)
Removal and Disposal of Contaminated Material

General Site Conditions

Contaminated material is present within the limits of this project. Contaminated material contains concentrations of contaminants that may exceed the Model Toxics Control Act (MTCA) Method A residential levels, in accordance with WAC 173-340.

Contaminated material does not exceed Washington State dangerous waste criteria in accordance with WAC 173-303.

All excavated soil from work performed at the Bridge No. 99/540NB&SB Pier 93 and 94 footing construction site, including all incidental excavation performed adjacent to the footing excavation pits as required for removal of existing railroad tracks, waterline thrust collar construction, and excavation work included on plan sheet UT3, shall be considered as contaminated material. The site history, environmental studies, and test results performed previously by the Contracting Agency indicate a potential for encountering soil, wood waste, and miscellaneous debris contaminated with petroleum, metals, solvents and creosote. Hydrogen sulfide may also be present. Hazardous material is not anticipated to be encountered at the site.

Copies of the soil and groundwater characterization reports are available for review at the Project Engineer's office. All necessary permits for on site work will be furnished by the Contracting Agency. The Contracting Agency will perform all testing of suspected hazardous or contaminated material.

General Requirements

The Contractor is responsible for all work, records, and reports required to perform the work as specified.

The Contractor shall submit a work plan proposal to the Engineer for approval at least 15 working days prior to beginning excavation activities.

Contractor personnel working in contaminated material areas shall be trained in accordance with applicable regulatory requirements and thoroughly briefed on the anticipated hazards, safety equipment to be employed, safety practices to be followed, and emergency procedures and communications.

The Contractor shall notify the Engineer 10 working days prior to beginning any excavation. The Contractor shall notify the Engineer immediately if previously unidentified contamination is discovered, or is suspected. The Contracting Agency will perform testing of suspect material.

The Contractor shall separate excavated soil from wood waste. Wood waste includes treated and untreated wood with a longest dimension exceeding 1 foot. Excavated soil shall be disposed of as contaminated in compliance with Section 2-03.3(7) – Contractor-Provided Disposal Site. Separated wood waste shall also be disposed of in compliance with Section 2-03.3(7) – Contractor-Provided Disposal Site.

Handling of Contaminated Material

The Contractor shall excavate material to the neat line limits for structure excavation of the work areas. No excavation beyond the neat line limits will be required or allowed.

All excavated material shall be handled and stored in a manner that prevents the spread of contamination to adjacent soil or water. Stockpiling of excavated material, except as specifically noted, is not required. When material stockpiling is needed, the stockpiled material shall be expeditiously removed from the site upon completion of the activity

requiring the stockpiling. This includes stockpiling required by Section 1-07.16(4) "Archaeological and Historical Objects" as supplemented in these Special Provisions.

The Contractor's excavation operations shall comply with the sections **Archeological and Historical Objects, Structure Excavation,** and **Dewatering** as supplemented in these Special Provisions.

Disposal of Contaminated Material
The following contact information for local disposal facilities that might accept contaminated material and wood waste generated by this project is supplied for the Contractor's convenience.

Rabanco Transfer Station
Joanne Kahl
Tel: 206.332.7707
Address: 2733 3rd Avenue South
Seattle, WA 98134

Waste Management
Missy Boone
Tel: 425.766.3168
Address: Alaska Street Reload and Recycle Facility
70 South Alaska Street
Seattle, WA 98106

The Contractor shall provide the Engineer with a copy of the shipping manifests or bills of lading indicating the amount of material hauled to disposal, and bearing the disposal site operator's confirmation for receipt of the material.

Contaminated Water
All water that is removed from the areas of contamination, including free water that leaches from contaminated soil stockpiles or water that is suspected of being contaminated, shall be collected, handled and stored in a manner that prevents the spread of contamination to adjacent soil or water. The Contractor shall comply with the requirements specified in the Section **Dewatering** of the Special Provisions.

Removal of Bridges, Box Culverts, and other Drainage Structures

Section 2-02.3(2) is supplemented with the following:

(June 26, 2000)
The Contractor shall remove the following portions of Bridge *** No. 99/540NB&SB ***, as shown in the Plans:

*** Pier 93 and 94 Footing Pedestals ***

(June 26, 2000)
Plans of the existing bridge(s) are available at the Project Engineer's Office for the prospective bidder's inspection.

(June 26, 2000)
Bridge Demolition Plan
The Contractor shall submit a bridge demolition plan with working drawings and calculations to the Engineer for approval in accordance with Section 6-01.9, showing the method of removing the existing bridge(s), or portions of bridges, as specified.

The bridge demolition plan shall show support bents, bracing, guys, lifting devices, lifting attachments, the sequence of demolition and removal, the type of equipment to be used in all demolition and removal operations, the location of cranes and barges, the location of support or lifting points, and the weights of structure parts being removed. The plan shall include a crane stability analysis and crane load calculations based on the controlling crane picks of the Contractor's plan. The plan shall detail the containment, collection, and disposal of all debris. The plan shall show all stages of demolition.

The Contractor shall not begin removal operations until receiving the Engineer's approval of the bridge demolition plan.

(August 1, 2005)
Removing Portions of Existing Concrete
Before removing the portions of the existing concrete adjacent to that which is to remain, a 3/4-inch deep saw cut, but no deeper than the existing concrete cover over the steel reinforcing bars, shall be made into the surface of the concrete to form a break line. Care shall be taken to prevent cutting the existing reinforcing steel bars which are to remain.

Care shall be taken in removing concrete to prevent overbreakage or damage to portions of the existing structure which are to remain. Concrete shall be carefully broken away from the steel reinforcing bars which extend from the existing structure. Steel reinforcing bars which extend from the existing members shall be cleaned (defined as exposing the deformed surface of the bar) and spliced with the steel reinforcing bars in the new members unless shown otherwise in the Plans. The Contractor shall protect traffic from falling concrete and debris, in accordance with the debris collection and containment provisions of the bridge demolition plan as approved by the Engineer.

Surfaces to which fresh concrete is to be bonded shall be rough and clean. The Contractor shall roughen surfaces of the existing structure by removing the surface mortar and developing a 1/16 inch minimum profile, by method(s) as approved by the Engineer. Loose particles, dust and dirt shall be removed by manual or mechanical means as approved by the Engineer. Oil or film of any sort that may reduce the bond between existing and fresh concrete shall be removed.

(******)
Concrete Removal Equipment Restrictions
The Contractor shall remove the specified portions of the existing Bridge No. 99/540NB&SB Pier 93 and Pier 94 footing pedestals using the following power driven tools:

1. Jack hammers no heavier than the nominal 60 pound class.

2. Chipping hammers no heavier than the nominal 15 pound class.

No other power driven equipment shall be used to remove the specified portions of the existing Bridge No. 99/540NB&SB Pier 93 and Pier 94 footing pedestals. The power driven tools shall be operated at angles less than 45 degrees as measured from the surface of the deck to the tool.

Use of Explosives

(June 26, 2000)
Explosives shall not be used in the demolition.

Measurement

Section 2-02.4 is supplemented with the following:

(******)
Contaminated material excavation including haul will be measured by the neat line cubic yard in place. All excavated material will be measured in the position it occupied before the excavation was performed. An original ground measurement will be taken using cross-section or digital terrain modeling survey techniques. The original ground will be compared with a survey of the excavation area taken after the work is completed. This measurement does not include areas specified in the section **Archaeological and Historical Objects** of the Special Provisions.

Payment

Section 2-02.5 is supplemented with the following:

(******)
"Contaminated Material Excavation Incl. Haul", per cubic yard.
The unit contract price for "Contaminated Material Excavation Including Haul" shall be full pay for all costs associated with excavating the material designated to be removed, hauling it to the stockpile location, and stockpiling the excavated material.

"Disposal of Contaminated Material", by force account.
All costs associated with disposing contaminated material shall be paid for by force account under the item "Disposal of Contaminated Material".

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

(June 26, 2000)
"Removing Portion of Existing Bridge _____", lump sum.

STRUCTURE EXCAVATION

Construction Requirements

Construction Requirements, Structure Excavation, Class A

Section 2-09.3(3) is supplemented with the following:

(******)

Bridge No. 99/540NB&SB Piers 93 And 94 Footing Construction Site

All excavation conducted at the Bridge No. 99/540NB&SB Piers 93 and 94 footing construction site, including all incidental excavation performed adjacent to the footing excavation pits as required for removal of existing railroad tracks, waterline thrust block construction, and removal and reconnection of storm drainage and other underground utilities, shall be considered as contaminated material in accordance with Section 2-02.3 as supplemented in these Special Provisions.

Excavation Using Open Pits – Extra Excavation

Section 2-09.3(3)B is supplemented with the following:

(BSP October 13, 2003)

Extra excavation and open pit excavation, as defined in this section, will not be allowed at the following location(s):

*** All excavation at the Bridge No. 99/540NB&SB Pier 93 & 94 footing construction site, except for excavation for the temporary support system at the Stage 1 micropiles at Pier 93 ***

The Contractor shall shore excavations at the locations specified above in accordance with Section 2-09.3(3)D. The Contractor shall submit shoring plans to the Engineer for approval in accordance with Section 2-09.3(3)D.

Shoring And Cofferdams

Section 2-09.3(3)D is supplemented with the following:

(March 13, 1995)

The Contractor shall protect the existing pavement from damage due to the Contractor's operations and shall shore all excavation adjacent to the existing pavement.

(******)

Yesler Way Vicinity Foundation Stabilization

The use of cofferdams with concrete seals, as defined in this Section and in accordance with Sections 6-02.3(6)B and 6-02.3(6)C, for the purpose of controlling bottom stability and groundwater inflow at the footings of Bridge Nos. 99/540NB&SB Piers 93 and 94 is not allowed.

The Contractor shall dewater the excavations at Piers 93 and 94, to maintain a dry excavation with a stable bottom, as specified elsewhere in these Special Provisions, as shown in the Plans, and as approved by the Engineer.

Payment

Section 2-09.5 is supplemented with the following:

(******)

All costs in connection with all excavation performed at the Bridge No. 99/540NB&SB Piers 93 and 94 footing construction site as specified, including removal and disposal, shall be included in the unit contract price per cubic yard for "Contaminated Material Excavation Incl. Haul" and the force account item "Disposal of Contaminated Material", as specified in Section 2-02.5 as supplemented in these Special Provisions.

(******)

VIBRATION MONITORING

Description

1.01 Vibration Monitoring

This work consists of providing, installing, monitoring, maintaining, and removing geotechnical vibration monitors to monitor vibration levels as required by the Plans, these specifications, and the Engineer.

Materials

2.01 General Material Requirements

Materials for vibration monitoring shall consist of the following:

1. The Contractor shall provide two portable seismographs for monitoring the velocities of ground vibrations resulting from construction activities, as approved by the Engineer. Each seismograph shall include:

    a. An external triaxial geophone.

    b. Three channels for vibration monitoring.

    c. The Contractor shall provide two power sources: an internal rechargeable battery with charger and a 115 volt AC battery. Batteries shall be capable of supplying power to monitor vibrations continuously for up to 30 days.

    d. Self-triggering waveform capture mode that provides a plot of wave forms, peak particle velocities, and frequencies of peaks.

    e. Continuous monitoring mode capable of recording single-component peak particle velocities, and frequency of peaks with an interval of one minute or less.

2. Computer software for performing continuous monitoring, data downloading, analysis, and to produce reports.

3. Vibration monitoring equipment that conforms to the following measurement requirements:

    a. Seismic range of 0.005 to 10 inches per second.

    b. Accuracy ±3 percent of the measured peak particle velocity or better at frequencies between 3 Hertz and 250 Hertz.

    c. Resolution of 0.005 inches per second or less.

    d. Acoustic range of 88 to 148 dB (referenced to 20 micro-Pascals) with an accuracy and resolution of ±0.3 dB.

    e. Frequency response (±3 dB points) of 2 to 250 Hertz.

f. Internal dynamic calibration capabilities.

Construction Requirements

3.01 General Requirements

The Contractor shall provide and install all vibration monitors as described herein. The Contractor shall perform readings and data collection, analyses, record keeping, and preparation of summary reports for all vibration monitors. Readings shall be performed by the Contractor as frequently as necessary to protect the Work and existing facilities, utilities, roadways, and improvements, and meet the project specifications. All reading devices, fixtures, cables, and necessary software for the various monitoring systems shall be provided by the Contractor. Results and devices are to be provided to the Engineer for use in confirmation monitoring. The Contractor shall maintain and protect all vibration monitors and replace damaged vibration monitors at no additional cost to the Contracting Agency.

Monitoring data shall meet the following requirements:

1. In the latest version of Microsoft Excel and paper copies of data from readings of vibration monitors within 8 hours after the readings are taken.

2. Plots of the data:

   a. Vibration data plotted as peak particle velocity vs. time.

   b. Data shall be plotted at scales that reflect the accuracy of the instrument and anticipated maximum change and shall include pertinent construction progress data.

3. Data via electronic copies and paper copies from the vibration monitors within 8 hours after the readings are taken.

In the event of noted abnormal monitoring data or in the event of construction-induced damage, the Contractor shall increase the frequency of data collection, install additional vibration monitors, or provide additional monitoring at no additional cost to the Contracting Agency.

3.02 Contractor's Experience Requirements

Experience of vibration monitoring specialist that will manage/oversee acquisition, installation, data collection, and analyze/interpret vibration monitoring data shall:

1. Be a professional engineer, licensed under Title 18 RCW, State of Washington, with a minimum of five years of experience in vibration and monitoring.

3.03 Instrument Installation

Installation and operation of the instrumentation shall be in strict conformance to the manufacturer's requirements.

3.04 Instrument Calibration

Instrument calibration shall conform to the following requirements:

1. The instrumentation systems shall meet the manufacturer's minimum calibration requirements at all times during the monitoring program.

2. In case of equipment failure or other reasons of nonperformance, the Contractor shall replace those vibration monitors within 24 hours of detection with acceptable vibration monitors, at no cost to the Contracting Agency.

3. The Contractor shall correlate the new vibration monitors with the previously acceptable data from the replaced vibration monitors to develop continuous plots of instrumentation data, but with an arrow and note indicating the date of replacement on each instrument plot and data table.

3.05 Instrument Monitoring Limits

Monitoring Limits are subject to the following requirements:

1. The Contractor shall conduct the Work in a manner such that peak particle velocities do not exceed 0.5 inches per second at the closest point of the Polson Building (61 Columbia Street), and the Western Building (619 Western Avenue) to the work.

2. If any instrument measurement reaches 75 percent of the limits specified in this Section, the Contractor shall take the following actions:

   a. Take immediate steps to stop the cause of displacement, or vibration.

   b. Notify the Engineer.

   c. Develop a corrective actions plan within 24 hours of the problem and submit to the Engineer for review and approval.

   d. Implement approved corrective actions.

   e. Verify success of corrective actions.

   f. If corrective actions are not successful or measurements reach the limits listed in this section, cease all related operations contributing to the vibrations and repeat process listed above.

   g. Under some circumstances, corrective actions require modification of construction procedures.

3.06 Submittals

A minimum of 30 calendar days prior to installation of vibration monitors, the Contractor shall submit the Qualifications and résumés of experience for the vibration monitoring specialist.

The Contractor shall submit the following, in accordance with Section 6-01.9, for schedule, outline plan, and documentation:

1. Detailed monitoring plan containing the information called for in this Section outlining clearly, when the required information shall be submitted.

2. Schedule and outline of procedures for instrument installation and performance of monitoring.

3. Operating manuals, specifications, and installation procedures for instrumentation.

4. Detailed plan of instrument locations with designation for each instrument.

5. Documentation of calibration checks on individual vibration monitors.

6. Initial calibration certificates:

    a. Periodic checks of readout vibration monitors, as recommended by manufacturer (maximum of 3-month intervals).

    b. Recalibration after any damage or disturbance.

7. Sample data tables and plots, including sample instrument calibration data.

8. Certification: Manufacturer's certification that products, materials, and equipment provided meets the specified requirements.

9. Contingency Plan of possible actions that might be required if 75 percent of any of the allowable limits presented in section 3.06 are exceeded for any instrument.

The Contractor shall submit the equipment and procedures to be used for pavement breaking and removal; shoring installation and removal; excavation; fill compaction; and micropile installation.

3.07 Availability of Data

The Contractor shall make all preliminary data collection and instrument readings available to the Engineer upon request.

The Contractor shall not disclose data reports or any other unprocessed data, readings, and observations to third parties outside of the Contract without the express written permission of the Engineer.

3.08 Monitoring Program

The vibration monitoring instrumentation described in the project specifications delineate the minimum required vibration monitors as a part of this Contract. The Contractor shall add vibration monitors as necessary to adequately monitor the Work.

3.09 Geotechnical Instrument Locations

The Contractor shall show the location of vibration monitors on the submitted monitoring plan. Exact locations of vibration monitors shall be field determined and shall have received the Engineer's approval prior to installation.

Vibration monitors shall be installed in accordance with the manufacturer's recommendations and as described herein.

In the event of noted abnormal monitoring data or in the event of damaged equipment, the Contractor may be directed by the Engineer to install additional vibration monitors at no additional expense to the Contracting Agency.

3.10 Instrument Installation

Vibration monitors more than 5 feet from the specified location on the approved working plans will require the Engineer's approval. For monitoring in the vicinity of nearby structures, vibration monitors shall be located on the ground surface near the structures as shown on the working plans. Geophones shall be installed in accordance with the manufacturer's recommendations. Geophones shall be oriented towards the construction activity.

3.11 Protection and Maintenance

The Contractor shall protect and maintain all vibration monitors. The Contractor shall repair or replace damaged or missing vibration monitors as required within 24 hours of detection of damage. Repair damage to any vibration monitors shall be at no additional cost to the Contracting Agency.

3.12 Instrument Monitoring Schedule

The Contractor shall meet the following monitoring schedule requirements:

1. Make initial readings on all vibration monitors. Take at least three sets of initial baseline measurements and readings, comparable and equal within the rated instrument accuracy before adjacent construction is started. Take additional readings until at least two comparable sets are obtained, which are within the rated instrument or survey accuracy.

2. Conduct continuous measurements of vibration at locations shown on the working plans during all construction activities.

3. Submit data from readings of all vibration monitors within 24 hours after readings are taken.

4. If the Contractor's vibration control measures fail to be maintained below the allowable limits, the Engineer reserves the right to stop Work at no additional expense to the Contracting Agency until the Contractor implements vibration control measures per the approved contingency plan.

6. Provide unrestricted access to all vibration monitors and monitoring points to the Engineer.

Measurement

4.01 Vibration Monitoring

No specific unit of measure will apply to the lump sum item of Vibration Monitoring.

Payment

5.01 Vibration Monitoring

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

"Vibration Monitoring", lump sum.

The lump sum contract price for "Vibration Monitoring" shall be full pay to install, monitor, analyze results, maintain, and remove geotechnical vibration monitors for the entire project as specified.

(******)

DEWATERING

Description

1.01 Dewatering

This work shall consist of the design, furnishing, installation, testing, operation, monitoring, maintenance, and removal of a temporary dewatering system throughout project construction. Monitoring wells shall be installed as part of the dewatering system, to provide information and assess system performance. Construction and removal of the temporary construction dewatering system, including installation and abandonment and decommissioning of the monitoring wells, shall be in conformance to requirements of WAC Chapter 173-160.

Components of the temporary dewatering systems include but are not limited to monitoring wells,-temporary dewatering wells, well points, and eductor wells.

1.02 Referenced Standards

The following references are a part of this Section as specified and modified:

Reference	Title
WAC Chapter 173-160	Minimum Standards for Construction of Wells
ASTM D 5092	Standard Practice for Design of Monitoring Wells
ASTM D 422	Standard Method for Particle Size Analysis

In case of conflict between the requirements of this Section and that of the documents listed above, the requirements of this Section shall prevail, provided that all regulatory requirements are met.

Materials

2.01 Well Construction

Drilling with mineral slurries is not permitted for the installation of dewatering wells, well points, or eductor wells. Wells shall be constructed with the following materials:

1. The dewatering wells, monitoring wells, well points, and eductor wells shall be constructed with flush-threaded Polyvinyl chloride (PVC) well casings or approved equal.

2. The dewatering wells, monitoring wells, well points, and eductor wells shall have machine-slotted PVC well screen of the same diameter as the casing material. The width and distribution of the slots shall be designed in conjunction with any filter material to prevent the movement of native soil into the well and facilitate the flow of water into the well.

3. The Contractor shall furnish filter pack material for dewatering wells, monitoring wells, well points, eductor wells, and sumps that meet the following requirements:

   a. The filter material shall consist of clean, well rounded, washed select silica sand and gravel free from silt, clay, and other deleterious material.

   b. The filter pack material shall have an appropriate grain size distribution that prevents the migration of the surrounding native soil into the well. The filter pack design and gradation must be submitted for review and approval by the Engineer prior to its use. The filter pack shall have a smooth and gradual grain size distribution curve when plotted.

   c. The Contractor shall install sufficient filter material for initial filter pack installation of each well. In addition, the Contractor shall install additional filter material as required during well development.

   d. The Contractor shall furnish a certificate of filter material quality and gradation as described in the construction requirements, prior to having filter material delivered to the site.

4. Seal material shall meet the following requirements:

   a. The Contractor shall install a surface seal for each dewatering well, monitoring well, well point, and eductor well using materials that are in accordance with WAC 173-160.

   b. To create the seal, annular space shall be filled with bentonite (slurry or chips), cement grout, or neat cement. Chips shall be hydrated when installed above the groundwater level.

2.02 Flowmeters

In-line totalizing flowmeters shall clearly indicate instantaneous flow rates in gallons per minute and the total flow volume in gallons from the dewatering system. The range of the flowmeter shall be no more than five times the average flow through the meter. All flowmeters shall be installed in accordance with the manufacturer's specifications and requirements. Particular attention shall be given to instrument location relative to the position of valves, elbows, joints, or other equipment that may impact the accuracy of the measurements. The Contractor shall submit all calibration documentation as described in the construction requirements.

2.03 General Material Requirements

The Contractor shall provide slotted or perforated casing with an approved filter pack for sumps.

Rigid PVC, HDPE, or equivalent piping shall be used to carry water from the dewatering system to the discharge point. Flexible hose will not be permitted.

The Contractor shall furnish an appropriate treatment system for groundwater so discharge water meets all disposal regulations, including but not limited to baffled settling tanks.

Construction Requirements

3.01 General Requirements

As part of this system, monitoring wells, as approved by the Engineer in the dewatering plan, shall be installed and monitored by the Contractor to evaluate the system performance and the potential for ground settlements. Sump pumps may be required to remove isolated pockets of groundwater or storm water runoff, but shall not be considered as solely adequate for site dewatering.

Soils, groundwater hydraulic and chemical studies at the proposed excavations have been undertaken by the Engineer. These studies are referenced in the summary of geotechnical conditions and are available for review at the Engineers office. Proper disposal of soil and groundwater shall be required. Groundwater disposal shall be to the sanitary sewer manhole as shown in the Plans. All discharge shall be treated to meet all requirements of the King County Industrial Waste Major Discharge Authorization. These include but are not limited to:

1. Maintaining the combined dewatering discharge rate below 25,000 gallons per day.

2. Treat the water discharge adequately to meet conditions in the King County Industrial Waste Major Discharge Authorization, the King County Industrial Waste Local Discharge Limits covered in [PUT 8-13 (PR)], and project-specific limits for:

    a. Soluble Sulfides at 0.1 mg/l or less

    b. Settleable Solids at less than 7 ml/L .

3.02 Definitions

Open sumping – the use of sump pumps to remove surface water without using a temporary screen or slotted casing surrounded with filter material; i.e. removing water by the direct placement of the sump pump within or on top of native soils.

Well development – using surging, jetting, and/or pumping techniques to:

1. Clean drilling debris from the well and the surrounding formation

2. Repair damage done by drilling to the formation

3. Remove biological or chemical encrustation from the well screen

4. Enhance the hydraulic connection between the well screen and the formation. Well redevelopment includes periodically performing these same procedures when the quality of the well performance declines.

3.03 Submittals

A minimum of 30 calendar days prior to the start of construction dewatering, the Contractor shall submit four copies of a project reference list to the Engineer for approval verifying the successful completion by the Contractor of at least three separate temporary dewatering projects within the past five years of a scale similar to the project shown in the Plans. A brief description of each project and the name of the owner's contact person with a current phone number shall be included for each project listed.

A minimum of 10 working days prior to the start of dewatering, the Contractor shall submit four copies of a list identifying the on-site supervisors and dewatering operations personnel assigned to the project. On-site supervisors shall have a minimum of two years experience in supervising operation and maintenance of construction dewatering projects. The list shall include a summary of each individual's experience related to dewatering system installation and operation. The Engineer will approve or reject the Contractor's qualifications and field personnel within 10 working days after receipt of the submission. Dewatering will not be allowed to start until the Contractor's qualifications and field personnel are approved by the Engineer. The Engineer may suspend construction dewatering if the Contractor substitutes unqualified personnel. The Contractor shall be fully liable for the additional costs resulting from the suspension of work and no adjustments in contract time resulting from the suspension of work will be allowed.

A minimum of 30 calendar days prior to the start of dewatering operations, the Contractor shall submit a dewatering plan, with supporting design calculations, to the Engineer in accordance with Section 6-01.9, except that a Washington State certified Hydrogeologist may prepare, seal, and sign the submittal in lieu of the specified licensed professional engineer. The submittal shall include detailed layout including the locations of new monitoring wells to be installed by the Contractor, design calculations and all details, dimensions, quantities, and cross-sections necessary to construct the temporary dewatering system. The calculations shall include a detailed explanation of any symbols and computer programs used in the design of the temporary dewatering systems. All computer output shall be accompanied by supporting hand calculations detailing the calculation process. In preparing the temporary dewatering system installation plan, the Contractor shall reference the available subsurface data, hydrogeologic reports and the geotechnical reports prepared for this project. The dewatering plan submittal shall include, but not be limited to, the following:

1. An overall construction operation sequence and the sequence of temporary dewatering system construction, including installation of the proposed shoring system and/or groundwater cutoff methods.

2. List, description and capacities of proposed equipment; description of equipment suitability to anticipated site and subsurface conditions.

3. Details of proposed drilling and/or excavation methods, well development methods, soil/drill cuttings disposal plan.

4. Details of method to be used to monitor the effectiveness and operation of the temporary dewatering system and to measure the groundwater elevations in monitoring wells outside the excavation.

5. Details of method to be used to treat and dispose of water produced by the temporary dewatering system including, but not limited to:

a. The controls and systems to maintain the combined groundwater discharge rate from all pumping activity at less than 25,000 gallons per day.

b. Minimum Treatment System
The discharge of the construction dewatering pumps shall be directed to a baffled settling tank. The discharge from this tank shall be directed to the Sanitary Sewer manhole (point of discharge) as shown in the Plans. Monitoring for soluble sulfides and settleable solids shall occur at the point of discharge. If monitoring indicates an exceedance of the project-specific limits for soluble sulfide of 0.1 mg/l, the pumped flow into the tank shall be dosed with hydrogen peroxide appropriate to assure that the discharge from the tank meets the sulfide limit. Alternatively, an equivalent treatment may be proposed by the Contractor.

c. Detailed description of equipment and treatment procedures to meet conditions in the King County Construction Dewatering Industrial Waste Major Discharge Authorization, the King County Industrial Waste Local Discharge Limits [PUT 8-13 (PR)] and project-specific limits for:

i. Soluble Sulfides at 0.1 mg/l or less

ii. Settleable Solids at less than 7 ml/L

d. Description of discharge water quality monitoring in accordance with King County Industrial Waste Major Discharge Authorization.

e. How and where the water samples shall be collected.

f. Description of analytical analyses to meet the monitoring requirements as set forth in the King County Industrial Waste Major Discharge Authorization, including identification of the laboratory or instrumentation used to perform the chemical analyses, the analytical testing methods to be used, and the timeframes to secure useable data results.

g. Description of how and where sediment and debris captured by the baffled settling tank shall be disposed of.

6. Plans indicating the location and size of any berms, dikes, ditches, sumps, vacuum and discharge lines, flowmeters, settlement tanks, and additional monitoring wells. All well and well point locations shall be shown; these shall conform to the requirements of this specification.

7. Specifications for well materials, pumps (including pump curves), and any additional well point or eductor system components.

8. Submit calibration certification of flowmeters.

9. Filter material design calculations and filter material gradation curves; certificate of filter material quality and gradation.

10. Detailed description of the dewatering schedule, operation, maintenance, and abandonment procedures.

11. Contingency plans if the dewatering system is unable to meet the performance requirements once in operation or if the dewatering system causes excessive drawdown and ground settlement.

Submit well completion and drilling logs to the Engineer within 5 working days of installation. At the minimum, well completion logs shall include the drilling location, elevation, geologic conditions, drilling conditions, soil descriptions, well installation diagrams, total borehole depth, total well depth, well diameter, screen length, filter pack depth, and seal depth.

The Contractor shall submit weekly reports to the Engineer on daily dewatering and disposal operations. The reports shall present the following information.

1. Number of wells in operation for each system.

2. Average rate of water removed from each well; well point system or eductor system.

3. Total volume of water disposed of from the date of the last report to the date of the current report.

4. Continuous groundwater elevations observed at monitoring wells with corresponding tide elevations.

5. Description of any problems with dewatering equipment or operations.

6. Compliance monitoring of final discharge water.

7. Water level elevation in each dewatering well and well point/eductor well (if it does not interrupt well point/eductor system performance), tabulated in a spreadsheet.

The Contractor shall resubmit revised working plans and calculations as necessary to reflect changes required by field conditions. Any modifications or revisions of the approved plan shall be documented and submitted to the Engineer.

3.04 Meetings

The Engineer will evaluate the temporary dewatering system installation plan for the conformance with the Plans and this dewatering specification. A temporary dewatering system submittal meeting will be scheduled following the Engineer's review. Those attending the submittal meeting shall include:

1. The Contractor's superintendent, on-site supervisors, and other Contracting personnel involved in the preparation of the temporary dewatering system installation plan

2. The Project Engineer and Contracting Agency personnel involved with the structural, geotechnical, and construction review of the temporary dewatering system installation plan.

3.05 Performance Requirements

The Contractor shall maintain a dry excavation and control groundwater pressures to prevent uplift, heave, blowout, softening of the bottom of excavations or formation of "quick" conditions or "boils" during excavation. Dewatering systems shall be designed and operated so as to prevent removal of the natural soils and to prevent damage to existing structures or interruption of site work. The Contractor shall maintain water elevations a minimum of 2 feet below the bottom of all excavations during installation of dowels, placement of rebar, and concrete pouring. In addition, water elevations shall not be drawn down to greater than 5 feet below the base of the excavation, or as approved by the Engineer. During construction of structures in the excavations, placing working base, backfilling, placing and setting of concrete, and prior to the acceptance of the work, the Contractor shall keep all excavations free of water. The Contractor shall control surface runoff so as to prevent entry or collection of water in excavations or in other isolated areas of the site. The Contractor shall make improvements to the dewatering system if the performance requirements are not met.

The Contractor shall maintain on site sufficient equipment and materials to provide continuous and successful operation of the dewatering monitoring systems. The Contractor shall provide sufficient number of pumps with adequate capacity at the site. Standby pumps and generators shall be available at all times. Other backup equipment and materials available shall include but are not limited to motors, flowmeters, header pipe, discharge pipe, valves, tees, elbows, tools, and system hardware. The Contractor shall provide appropriate sumps and ditches. The Contractor shall be responsible for obtaining and maintaining all electric power service connections to the dewatering system components.

The Contractor shall provide backup systems for all ordinary emergencies including power outages and flooding and shall have available at all times competent workers for the continuous and successful operation of the temporary dewatering system. The Contractor shall provide backup power generation and minimum 20% dewatering system components, including valves, flowmeters, blowers, pumps and piping, and devise emergency procedures for maintaining continuous uninterrupted groundwater control operations. The recovery of water elevations in the soil may be rapid if dewatering system operation is interrupted.

The Contractor shall maintain the dewatering system during all phases of construction or until directed to discontinue dewatering operations by the Engineer. The Contractor shall bear all costs associated with maintaining, repairing, replacing, or delays caused by damages to the temporary dewatering system, its components or the monitoring wells.

The Contractor shall provide protection and warning signs where construction equipment crosses over, or is in the vicinity of header or discharge piping. The Contractor shall provide valves on all header or discharge lines on either side of access ramps or wherever vehicles are traveling as a safeguard so that the system can remain operable if the lines are damaged. The Contractor shall clearly mark all wells, pumps, header pipe, discharge pipe, and other system components to prevent damages from construction activities.

The Contractor shall provide separate flowmeters at each of the main line headers for the well points or eductor wells, and at each dewatering well so that flow rates can be monitored continuously during operation. If separate well point or eductor systems in different areas of the site are being operated simultaneously, each shall have its own flowmeter.

The Contractor shall be responsible for operating, maintaining, and monitoring the dewatering system during construction. System maintenance shall include, but not be

limited to, full-time (24 hours per day, 7 days a week) supervision by personnel skilled in the operation, maintenance, and monitoring of flow rates from wells and sumps, replacement of system components, well redevelopment, and any other work required to maintain the performance of the system. The system operation shall be continuous, and interruptions will not be permitted. The system shall not be shut down between shifts, on holidays or weekends, or during work stoppage without written permission from the Engineer. The Contractor shall provide sufficient monitoring wells (a minimum of four) to adequately evaluate the temporary dewatering system performance.

The Contractor shall maintain records of the dewatering system installation and performance data. The records shall include well depths, elevations, dates of installation, approximate rates of flow; water elevations at various times during construction, and sump and piping locations. Flow rates and the amount of settleable solids removed shall be recorded during operation of the dewatering system. Specifically, the Contractor shall collect daily water elevations in all dewatering wells, monitoring wells, well points/eductor wells (if it does not interrupt the performance of the well point/eductor system); daily instantaneous flow rates and total flow volumes from all dewatering wells, well point systems, eductor well systems, and at all discharge points.

The Contractor shall confine all discharge piping and/or ditches to within the State right-of-way, any construction easements, or additional easements obtained by the Contractor. All necessary means for disposal of water, including obtaining additional easements and necessary permits, shall be provided by the Contractor.

The Contractor shall prevent excessive drawdown and related ground settlement outside of the excavations. The Contractor shall measure pre-construction water elevations in monitoring wells a minimum of 7 days prior to operation of the dewatering system to establish a baseline groundwater level. Data shall be collected continuously (at least every six minutes) in each well to evaluate groundwater fluctuations. Based on this data, the tide levels during the 5 days prior to dewatering, and the anticipated tide levels during construction, the Contractor shall propose and submit to the Engineer for approval a minimum allowable groundwater elevation that shall not be exceeded at building, utility, and existing facility locations during dewatering operations. All damages associated with dewatering operations, including dewatering induced settlement shall be at no cost to the Contracting Agency.

3.06 System Installation Requirements

The Contractor shall drill and install dewatering wells, a well point system and/or an eductor system and a minimum of four monitoring wells. Monitoring wells shall be installed in the general vicinity of adjacent existing structures. The Contractor shall install dewatering wells, monitoring wells, well points, and eductor wells according to the requirements and schedule in this specification. All well installations shall conform to the Washington State Administrative Code (WAC) 173-160, Minimum Standards for Well Construction, which can be obtained directly from the Washington State Department of Ecology.

Drilling associated with the dewatering wells, well points, and/or eductor wells shall be performed using a drilling method that is approved by the Engineer. Drilling with mineral slurries will not be permitted.

Centralizers shall be placed both at the bottom of the screen section and one foot above the top of the screen section in each well.

The Contractor shall install a surface seal for each dewatering well, monitoring well, well point, and eductor well in accordance with WAC 173-160.

The Contractor shall provide and size sumps and all piping to remove storm water runoff and any groundwater seepage from the excavation. Sumps shall be designed and installed to prevent removal of native materials. Open sump pumping (the use of sump pumps to remove surface water without using a temporary screen or slotted casing surrounded with filter material) is not permitted.

All discharge piping shall be designed to minimize head loss and turbulent flow, and to be protected for all vehicular traffic loading when applicable.

3.07 Electrical Supply for Installation of Dewatering Systems

The electrical service used for dewatering shall be supplied by the Contractor and shall be separated from all other Contractor electrical requirements and dedicated solely to the operation of the dewatering systems on a circuit separate from all other electrical uses.

The Contractor shall provide a backup electric supply that can deliver 100 percent of the demand required for the dewatering system.

The Contractor shall provide an automatic system to switch from the primary electrical service to the backup service in the event of a primary service failure and an alarm system to notify site personnel in the event of an electrical service failure.

3.08 Well Development

The Contractor shall develop each dewatering well, monitoring well, and well point/eductor well by a combination of pumping and surging within the screened interval to enhance the hydraulic connection between the screened interval and the surrounding soil. Monitoring wells shall be developed prior to measuring groundwater elevations for baseline conditions. Development shall be considered complete when: a minimum of 5 well volumes have been removed; the sand content of the discharge water does not exceed 5 parts per million as determined by a Rossum Sand Tester, Imhoff Cone method, or other approved method; and the discharge water meets all discharge permit requirements.

Development discharge shall be treated and disposed of as defined in 3.03 Submittals.

Disposal of water on the ground at the site will not be permitted. The Contractor shall provide all equipment and fittings necessary for monitoring groundwater quality and sand content.

3.09 Monitoring System

During dewatering operations, the Contractor shall monitor the groundwater elevations continuously (at least every 30 minutes) to verify that the temporary dewatering system is functioning as designed and intended and excessive drawdown is not occurring. The Contractor shall begin water level measurements in new monitoring wells 7 days prior to commencing any dewatering system installation, and shall continue measurements continuously until the monitoring well is properly decommissioned or upon Engineer approval. The Contractor shall review the monitoring well data on a daily basis during

dewatering operations. If the minimum groundwater elevation measured is less than the minimum allowable groundwater elevation, the Contractor shall inform the Engineer immediately, and implement adjustments to the dewatering system such that groundwater elevations are maintained above the minimum allowable groundwater elevation, or as directed by the Engineer. The Contractor shall be aware of the daily tidal cycle and its effect on the groundwater elevations. Groundwater elevations shall be reported with corresponding tide elevations to evaluate the potential maximum drawdown. Measurements shall be tabulated in a spreadsheet and provided to the Engineer on a weekly basis.

Monitoring wells shall be decommissioned, removed, altered and replaced, as the work requires; however, the Contractor shall be held responsible for the water level information provided by those wells and any consequences stemming from the lack of that information. The Contractor shall re-survey any altered monitoring wells and shall replace any active part of the monitoring system damaged by the Contractor.

The Contractor shall be responsible for numbering and obtaining location coordinates and ground surface elevations for all dewatering wells, monitoring wells, and well points/eductor wells. Measuring points on wells shall be permanently marked and elevations surveyed. All monitoring information shall be reported to the Engineer within one week of generation.

3.10 Available Hydrogeologic and Water Quality Data

Hydrogeologic and water quality data are available from the Hydrogeologic and Geotechnical Reports prepared for this project. Use of this information in no way relieves the Contractor from its responsibility for design, construction, and operation of a properly functioning dewatering and treatment system. Any additional testing the Contractor may wish to perform in order to assure a properly functioning dewatering system shall be at no additional cost to the Contracting Agency.

3.11 System Removal and Well Decommissioning

Upon written authorization of the Engineer, the Contractor shall remove from the site all temporary dewatering system elements with the exception of those monitoring wells so designated by the Engineer. The Contractor shall assume ownership and responsibility for the disposal of all dewatering pumps, pipes and other assorted system hardware. The Contractor shall remove and abandon all wells in accordance with the requirements of WAC 173-160-450 and 173-160-460.

Measurement

4.01 Dewatering

No specific unit of measurement shall apply to the lump sum item of Dewatering System.

The maintenance and operation of the dewatering system for the entire dewatering system including well redevelopment will be measured by the month for each month the system is in operation. Fractions of a month will be prorated by the number of calendar days operated divided by the number of calendar days in that month.

Payment

5.01 Dewatering

Payment will be made for the following bid items when they are included in the proposal:

1. "Dewatering System", lump sum.

2. "Maintenance and Operation of Dewatering System", per month.

The lump sum contract price for "Dewatering System" shall be full pay to furnish, install, and remove the temporary dewatering system including monitoring wells for the entire project as specified.

The unit contract price per month for "Maintenance and Operation of Dewatering System" shall be full pay for all work involved in maintaining and operating the entire dewatering system during construction as specified.

DIVISION 5
SURFACE TREATMENTS AND PAVEMENTS

(******)
WATERFRONT PEDESTRIAN/BICYCLE FACILITY

Description
This work consists of constructing, maintaining, and removing the Waterfront Pedestrian/Bicycle Facility.

Materials
Materials for the Waterfront Pedestrian/Bicycle Facility shall meet the requirements of the following sections:

1. Hot Mix Asphalt	9-03.8
2. Crushed Surfacing	9-03.9
3. Construction Geotextile	9-33

Construction Requirements

General Requirements
The Contractor shall notify Metro Transit in writing at least 14 calendar days prior to beginning construction within the waterfront streetcar right of way. The Contractor shall furnish a copy of the letter to the Engineer. The Contractor shall coordinate, through the Engineer, with Metro Transit construction inspection personnel Ron Moattar (206) 684-2081. The Waterfront Pedestrian/Bicycle Facility shall be constructed as shown in the Plans. The Waterfront Pedestrian/Bicycle Facility shall be constructed before the temporary construction fence is installed.

Maintenance
The Contractor shall maintain the Waterfront Pedestrian/Bicycle Facility and Waterfront Street Car tracks throughout the construction. Maintenance and repairs to the Waterfront Street Car tracks will be at no additional expense to the Contracting Agency.

Removal
The Waterfront Pedestrian/Bicycle Facility shall be removed after all other construction is completed, and the temporary construction fence is removed. Ballast contaminated by placing crushed surfacing or other operations shall be cleaned or replaced. The existing wooden guard rails temporarily removed shall be reset in good condition. If the existing

wooden guard rails are damaged by the Contractor's operation, new wooden guard rails shall be installed. The Contractor shall notify Metro Transit through the Engineer when the Waterfront Pedestrian/Bicycle Facility is removed.

Measurement

No specific unit of measure will apply to the lump sum item of Waterfront Pedestrian/Bicycle Facility.

Payment

Payment will be made in accordance with Section 1-04.1 for the following bid item that is included in the Proposal:

"Waterfront Pedestrian/Bicycle Facility", lump sum.

The lump sum contract price for "Waterfront Pedestrian/Bicycle Facility" shall be full pay for the construction, maintenance and removal of the facility as specified.

DIVISION 6
STRUCTURES

GENERAL REQUIREMENTS FOR STRUCTURES

Foundation Data

Section 6-01.2 is supplemented with the following:

(June 26, 2000)
The attached log of test boring pages are reproductions of the original Log of Test Boring for the test holes shown in the Plans.

The Contractor should review the geotechnical recommendations report prepared for this project. Copies of the geotechnical recommendations report are available for review by prospective bidders at the location specified in Section 1-02.4 as supplemented in these Special Provisions.

(August 6, 2001)
The Contractor should also review the Summary of Geotechnical Conditions in the Appendix to the Special Provisions.

CONCRETE STRUCTURES

Materials

Section 6-02.2 is supplemented with the following:

(April 2, 2007)
Resin Bonded Anchors

The resin bonded anchor system shall include the nut, washer, and threaded anchor rod which is installed into hardened concrete with a resin bonding material. The resin bonded anchor system shall conform to the following requirements:

1. Threaded Anchor Rod and Nuts

Threaded anchor rods shall conform to ASTM A 193 Grade B7 or ASTM A 449, except as otherwise noted, and be fully threaded. Threaded anchor rods for stainless steel resin bonded anchor systems shall conform to ASTM F 593 and shall be Type 304 unless otherwise specified.

Nuts shall conform to AASHTO M 291, Grade DH, except as otherwise noted. Nuts for stainless steel resin bonded anchor systems shall conform to ASTM F 594 and shall be Type 304 unless otherwise specified.

Washers shall conform to AASHTO M 293, except as otherwise noted. Washers for stainless steel resin bonded anchor systems shall conform to ANSI B18.22.1 and shall be Type 304 Stainless Steel unless otherwise specified.

Nuts and threaded anchor rods, except those manufactured of stainless steel, shall be galvanized in accordance with AASHTO M 232. Galvanized threaded anchor rods shall be tested for embrittlement after galvanizing, in accordance with Section 9-06.5(4).

Threaded anchor rods used with resin capsules shall have the tip of the rod chiseled in accordance with the resin capsule manufacturer's recommendations. Galvanized threaded rods shall have the tip chiseled prior to galvanizing.

2. Resin Bonding Material
Resin bonding material shall be one of the following:

   a. Vinylester resin.

   b. Polyester resin.

   c. Methacrylate resin.

   d. A two component epoxy resin.

3. Ultimate Anchor Tensile Capacity
Resin bonded anchors shall each be tested in accordance with ASTM E 488 to have the following minimum ultimate tensile load capacity when installed in concrete having a maximum compressive strength of 6000 pounds per square inch (psi) at the embedment specified below:

Anchor Diameter (inch)	Tensile Capacity (lbs.)	Embedment (inch)
3/8	7,800	3-3/8
1/2	12,400	4-1/2
5/8	19,000	5-5/8
3/4	27,200	6-3/4
7/8	32,000	7-7/8
1	41,000	9
1-1/4	70,000	11-1/4

(December 2, 2002)

Epoxy Bonding Agent For Surfaces And For Steel Reinforcing Bar Dowels

Epoxy bonding agent for surfaces shall be Type II, as specified in Section 9-26.1. Epoxy bonding agent for steel reinforcing bar dowels shall be either Type I or Type IV, as specified in Section 9-26.1. The grade and class of epoxy bonding agent shall be as recommended by the resin manufacturer and approved by the Engineer.

(June 26, 2000)

Epoxy Crack Sealing Materials

Epoxy sealing paste shall be a thixotropic compound.

Epoxy injection resin shall be a moisture-insensitive, two-component material capable of restoring the structural integrity of a structure by structurally bonding cracks, delaminations and hollow planes. Resin formulations shall be hydrophilic with variable viscosity to allow full depth penetration in cracks having a width of 6 mils and greater.

Epoxy injection resin, when mixed with the hardener in accordance with the manufacturer's written instructions, shall cure to a non-shrink solid material. The material shall have a normal curing time of less than 24 hours.

Epoxy injection resin shall have the following physical properties:

Solids Content, by weight (minimum)	98 percent
Viscosity (maximum) at 77F (Brookfield)	700 cps
Compressive Yield Strength (minimum)	12,000 psi
Minimum Flexural Strength (ASTM D 790)	10,000 psi
Bond Strength (minimum)	500 psi

The Contractor shall submit a sample of the material of the epoxy sealing paste and epoxy injection resin to the Engineer together with sufficient directions and technical data for its use. The Contractor shall not begin epoxy crack sealing operations until receiving the Engineer's approval of the materials selected for use, with verification from the WSDOT Materials Laboratory that the materials meet the specified requirements.

The Contractor shall submit to the Engineer a copy of the Materials Safety Data Sheet (MSDS) for each type of epoxy sealing paste and epoxy injection resin.

(******)

Temporary Support System

HSS tubes shall conform to ASTM A 500, Grade B.

Steel angles shall conform to ASTM A 992.

Steel plates, steel shims, and HP steel shapes shall conform to either ASTM A 36 or ASTM A 992.

Bolts, nuts, and washers shall conform to Section 9-06.5(3).

(******)

Beam Repair

Concrete for beam repair shall conform to Section 9-20.2(2).

Construction Requirements

Section 6-02.3 is supplemented with the following:

(June 26, 2000)

Epoxy Crack Sealing

The materials being used may be dermatetic. The Contractor's contact with and use of the materials shall conform to the requirements specified in the MSDS for each material, and all personnel shall be provided with appropriate clothing and protective garments.

All materials shall be stored and protected from ignition sources as recommended by the material manufacturer.

The cracks shall be cleaned of efflorescence, deteriorated concrete and other surface debris, by vacuuming, flushing, routing, sawing or other means as required.

Entry ports shall consist of tubes, tees or other valve devices as recommended by the resin manufacturer. The ports shall be placed at intervals along each crack in accordance with the manufacturer's written instructions for the resin being used. The holes for the entry ports shall be drilled with a hollow bit with an attached vacuum chuck to prevent concrete dust from becoming embedded in the crack.

The exposed crack surfaces and the areas around the entry ports shall be sealed with epoxy sealing paste and cured in accordance with the resin manufacturer's written instructions, to attain a seal capable of withstanding the applied injection pressures.

The Contractor shall furnish the services of a factory trained technical representative to perform the epoxy crack sealing injection.

Injection shall be accomplished with a pressure or injection machine compatible with the resin selected for use and shall begin at the lowest port and continue until there is evidence of the resin at the entry port directly above and adjacent to the port being pumped. When material travel is indicated, the nozzle shall be moved to the port that shows resin. The previously pumped port shall be sealed. Injection shall continue until the crack is completely filled. On wide cracks where resin travel between ports will be rapid, two or more ports may be pumped simultaneously. On exceptionally large cracks, a formulation (dependent upon crack width, ambient temperature, modulus requirements and other variables) of epoxy resin and fine sands shall be used as approved by the Engineer.

After all ports have been pumped and the crack is full, the epoxy resin shall be cured without disturbance in accordance with the resin manufacturer's written instructions as necessary to ensure development of the full bond capacity of the material.

After the epoxy has cured completely, the epoxy sealing paste and port stems shall be ground flush with the original surface of the concrete.

Cores shall be taken after the repair is completed to confirm penetration and bonding. These cores shall be submitted to the Engineer for testing in the WSDOT Materials Laboratory.

(******)
The Contractor shall inject all cracks specified by the Engineer to receive epoxy crack sealing.

(******)

Temporary Support System

The Contractor shall submit shop drawings of the temporary support system to the Engineer in accordance with Section 6-03.3(7). The shop drawing submittal shall include, but not be limited to, the following:

1. Plan, elevation, and sections of each temporary support system frame, and of each frame component, with dimensions and tolerances.

2. All material designations.

3. Step by step erection sequence, in accordance with Section 6-03.3(7)A.

4. Removal sequence.

The Contractor shall not begin fabrication of the temporary support system until receiving the Engineer's approval of the shop drawing submittal.

The Contractor shall erect the temporary support system in accordance with the details shown in the Plans, and the shop drawings and erection sequence as approved by the Engineer. Welding shall conform to Section 6-03.3(25). The shim stacks inserted between the temporary support system frame and the existing concrete edge beams and cross beams, shall be installed to snug tight.

Upon completion of the footing reconstruction at Piers 93 and 94, the Contractor shall remove the temporary support system in accordance with Section 2-02.3 and the removal sequence as approved by the Engineer.

(******)

Beam Repair

Submittals

The Contractor shall submit a beam repair plan to the Engineer for approval in accordance with Section 6-01.9. The beam repair plan shall include, but not be limited to, the following:

1. Type of equipment to be used in all demolition and removal operations.

2. Details of the methods and equipment used for containment, collection, and disposal of all debris.

3. Methods and equipment used to remove, store, retrofit, and reinstall, the existing west edgebeam support strut at Pier 94 West.

4. Methods and equipment used to clean and prepare the surfaces for placement of the concrete patching material, and to form, cast, and cure the concrete patching material.

The Contractor shall not begin beam repair work until receiving the Engineer's approval of the beam repair plan submittal.

Existing West Edgebeam Support Strut

Prior to beginning concrete removal and micropile work at Pier 94 West, the Contractor shall remove the bottom west edgebeam support strut, including the angles used to connect the strut to the concrete column face. The Contractor may facilitate release of the strut load and removal of the strut by removing the grout pad and a portion of the concrete footing at the base of the strut. The Contractor shall salvage and store the support strut components during the construction activities in accordance with the beam repair plan as approved by the Engineer.

After completion of the micropile work and footing reconstruction at Pier 94 West, the Contractor shall field measure the vertical dimension along the face of the column between the top of the footing and the bottom of the edgebeam. Based on this dimension, the Contractor shall shorten the strut by cutting off the top portion and reattaching the top bearing plate, using methods and equipment as approved by the Engineer.

Based on the locations of the existing resin bonded anchors, the Contractor shall field drill holes through the strut flange in accordance with Section 6-03.3(27), except as otherwise noted. The Contractor may field drill the holes using hand held drills provided that the Contractor submits the method and equipment used to the Engineer for approval, and that the Contractor received the Engineer's approval of the submittal prior to beginning hand drilling.

All damaged paint and exposed metal surfaces shall be field repaired in accordance with Section 6-07.3(2) with one coat of paint conforming to either Formula A-11-99 or Formula A-9-73, as specified in Section 9-08.2.

After completion of the strut retrofit work, the Contractor shall erect the west edgebeam support strut, including reconnection of the column connections and reinstallation of the elastomeric bearing pad at the top.

Beam Repair

The Contractor shall remove all damaged and unsound existing concrete required for the beam repair work as shown in the Plans and as specified by the Engineer. The existing concrete surface shall be sounded to confirm that all unsound concrete has been removed.

Before removing the portions of the existing concrete adjacent to that which is to remain, a 3/4-inch deep saw cut, but no deeper than the existing concrete cover over the steel reinforcing bars, shall be made into the surface of the concrete to form a break line. Care shall be taken to prevent cutting the existing reinforcing steel bars which are to remain.

Care shall be taken in removing concrete to prevent overbreakage or damage to portions of the existing structure which are to remain. Concrete shall be carefully

broken away from the steel reinforcing bars which extend from the existing structure. The Contractor shall protect traffic from falling concrete and debris, in accordance with the debris collection and containment provisions of the beam repair plan as approved by the Engineer. The Contractor shall dispose of all materials removed by the demolition operations in accordance with Section 2-02.3.

Equipment used for beam repair concrete removal shall conform to the requirements specified for concrete removal in Section 2-02.3(2) as supplemented in these Special Provisions, except that jack hammers shall be no heavier than the nominal 30 pound class.

The Contractor shall roughen the existing concrete surfaces bonding to the fresh concrete by removing the surface mortar and developing a 1/16 inch minimum profile, by method(s) as approved by the Engineer, and shall clean and prepare all existing concrete surfaces bonding to the fresh concrete in accordance with Section 6-02.3(12). The Contractor shall abrasive blast or wire brush the exposed portions of the existing steel reinforcement to remove rust and attached concrete debris.

The Contractor shall form, cast, and cure the concrete patching material used to complete the beam repair, in accordance with the beam repair plan as approved by the Engineer.

(August 5, 2002)

Placing Anchor Bolts

Section 6-02.3(18) is supplemented with the following:

Resin Bonded Anchors

The Contractor shall submit item 1 and 2 to the Engineer for all resin bonded anchor systems. If the resin bonded anchor system and anchor diameter are not listed in the current WSDOT Qualified Products List, the Contractor shall also submit item 3 to the Engineer.

1. The resin manufacturer's written installation procedure for the anchors. Resin bonding material used in overhead and horizontal application shall be specifically recommended by the resin manufacturer for those applications.

2. The manufacturer's certificate of compliance for the threaded anchor rod certifying that the anchor rod meets the requirements of this Special Provision.

3. Test results by an independent laboratory certifying that the threaded anchor rod system meets the ultimate anchor tensile load capacity specified in Section 6-02.2 as supplemented in these Special Provisions. The tests shall be performed in accordance with ASTM E 488.

The embedment depth of the anchors shall be as specified in the Plans. If the embedment depth of the anchor is not specified in the Plans then the embedment depth shall be as specified in the table of minimum and maximum torque below.

The anchors shall be installed in accordance with the resin manufacturer's written procedure.

Holes shall be drilled as specified in the Plans. Holes may be drilled with a rotary hammer drill when core drilling is not specified in the Plans. If holes are core drilled, the sides of the holes shall be roughened with a rotary hammer drill after core drilling.

Holes shall be prepared in accordance with the resin manufacturer's recommendations and shall meet the minimum requirements as specified herein. Holes drilled into concrete shall be thoroughly cleaned of debris, dust, and laitance prior to installing the threaded rod and resin bonding material. Holes shall not have any standing liquid at the time of installation of the threaded anchor rod.

Threaded anchors shall not be installed in submerged liquid environments unless specifically recommended by the resin manufacturer. The Contractor shall submit tests performed by an independent laboratory which certifies that anchors installed in a submerged environment meet the strength requirements specified in Section 6-02.2 as supplemented in these Special Provisions.

The anchor nuts shall be tightened to the following torques when the embedment equals or exceeds the minimum embedment specified.

Anchor Diameter (inch)	Minimum Torque (ft-lbs)	Maximum Torque (ft-lbs)	Minimum Embedment (Inch)
3/8	12	18	3-3/8
1/2	22	35	4-1/2
5/8	55	80	5-5/8
3/4	106	140	6-3/4
7/8	165	190	7-7/8
1	195	225	9
1-1/4	370	525	11-1/4

When the anchor embedment depth is less than the minimum values specified, the anchor nuts shall be tightened to the torque values specified in the Plans, or as recommended by the resin bonded anchor system manufacturer and approved by the Engineer.

Reinforcement

Placing and Fastening

Section 6-02.3(24)C is supplemented with the following:

(June 26, 2000)

Drilling Holes for, and Setting, Steel Reinforcing Bar Dowels

Where called for in the Plans, holes shall be drilled into existing concrete to the size and dimension shown in the Plans. The Contractor may use any method for drilling the holes provided the method selected does not damage the concrete and the steel reinforcing bar that is to remain. Core drilling will be required when specifically noted in the Plans.

The Contractor shall exercise care in locating and drilling the holes to avoid damage to existing steel reinforcing bars and concrete. Location of the holes may be shifted slightly with the approval of the Engineer in order to avoid damaging the existing steel reinforcing bars. All damage caused by the Contractor's operations shall be repaired by the Contractor at no cost to the Contracting Agency and the repair shall be as approved by the Engineer.

Steel reinforcing bars shall be set into the holes noted in the Plans with epoxy resin. The holes shall be blown clean with dry compressed air before placing the resin.

The Contractor shall demonstrate, to the satisfaction of the Engineer, that the method used for setting the steel reinforcing bars completely fills the void between the steel reinforcing bar and the concrete with epoxy resin. Dams shall be placed at the front of the holes to confine the epoxy and shall not be removed until the epoxy has cured in the hole.

Measurement

Section 6-02.4 is supplemented with the following:

(******)
"Furnishing, Installing, & Removing Temp. Support Sys." contains the following approximate quantities of materials and work:

Structural Steel	45,000 LB.

The quantities are listed only for the convenience of the Contractor in determining the volume of work involved and are not guaranteed to be accurate. The prospective bidders shall verify these quantities before submitting a bid. No adjustments other than for approved changes will be made in the lump sum contract price for "Furnishing, Installing, & Removing Temp. Support Sys." even though the actual quantities required may deviate from those listed.

Payment

The fifth and sixth bid items under Section 6-02.5 are supplemented with the following:

(June 26, 2000)
All costs in connection with drilling holes in concrete and setting steel reinforcing bar dowels with epoxy resin as specified shall be included in the unit contract price per pound for "St. Reinf. Bar _____" or "Epoxy-Coated St. Reinf. Bar _____" as applicable. If the steel reinforcing bars are to be paid for other than by type of bar then the costs shall be included in the applicable adjacent item of work.

Section 6-02.5 is supplemented with the following:

(******)
"Furnishing, Installing, & Removing Temp. Support Sys.", lump sum.
The lump sum contract price for "Furnishing, Installing, & Removing Temp. Support Sys." shall be full pay for performing the work as specified, including fabricating, erecting, shimming, removing, and disposing of the temporary support system.

(******)
"Force Account Epoxy Crack Sealing", force account.
Payment for "Force Account Epoxy Crack Sealing" will be by force account in accordance with Section 1-09.6. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount for the item "Force Account Epoxy Crack Sealing" in the bid proposal to become a part of the total bid by the Contractor.

(******)
"Force Account Beam Repair", force account.
Payment for "Force Account Beam Repair", including removing, storing, retrofitting, and reinstalling, the west edgebeam support strut, will be by force account in accordance with Section 1-09.6. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount for the item "Force Account Beam Repair" in the bid proposal to become a part of the total bid by the Contractor.

(June 26, 2000)
Bridge and Structures Minor Items
For the purpose of payment, such bridge and structures items as *** epoxy bonding agent, grout, resin bonded anchors, *** etc., for which there is no pay item included in the proposal, are considered as bridge and structures minor items. All costs in connection with furnishing and installing these bridge and structures minor items as shown and noted in the Plans and as outlined in these specifications and in the Standard Specifications shall be included in the *** applicable adjacent item of work ***

(******)
MICROPILE

Description
1.01 Micropiles

This work consists of constructing micropiles as shown in the Plans and approved working drawings and as specified herein.

Materials
2.01 General Material Requirements

Materials for micropiles shall consist of the following:

1. Admixtures for Grout: Admixtures shall conform to Section 9-23.6.

   Admixtures that control bleed, improve flowability, reduce water content, and retard set may be used in the grout, subject to the review and acceptance of the Engineer. Admixtures shall be compatible with the grout and mixed in accordance with the manufacturer's recommendations. Expansive admixtures shall only be added to the grout used for filling sealed encapsulations and anchorage covers. Accelerators are not permitted. Admixtures containing chlorides are not permitted.

2. Cement: All cement shall be Portland cement conforming to Section 9-01.2(1), except that the Types shall be II, III or V.

3. Centralizers and Spacers: Centralizers and spacers shall be fabricated from schedule 40 PVC pipe or tube, steel, or material non-detrimental to the reinforcing steel. Wood shall not be used. Centralizers and spacers shall be securely attached to the reinforcement; sized to position the reinforcement within 3/8 inch of plan location from center of micropile; sized to allow grout tremie pipe insertion to the bottom of the drillhole; and sized to allow grout.to freely flow up the drillhole and casing and between adjacent reinforcing bars.

4. Encapsulation: Encapsulation (double corrosion protection) shall be shop fabricated using high-density, corrugated polyethylene tubing conforming to the requirements of ASTM D 3350/AASHTO M 252 with a nominal wall thickness of 1/32 inch. The inside annulus between the reinforcing bars and the encapsulating tube shall be a minimum of 1/4 inch and be fully grouted with non-shrink grout conforming to item 7 of this subsection.

5. Epoxy Coating: The minimum thickness of coating applied electrostatically to the reinforcing steel shall be 1 mil. Epoxy coating shall conform to Section 9-07.3. Bend test requirements are waived. Bearing plates and nuts encased in the micropile concrete footing need not be epoxy coated.

6. Fine Aggregate: If sand - cement grout is used, sand shall conform to AASHTO M 45.

7. Grout: Neat cement or sand/cement mixture with a minimum seven day compression strength of 4,000 psi in accordance with Section 6-02.3(20).

8. Grout Protection: Provide a minimum 1 inch grout cover over bare or epoxy coated bars (excluding bar couplers) or minimum 1/2 inch grout cover over the encapsulation of encapsulated bars.

9. Pipe Casing: Steel pipe casing for micropiles shall have the diameter and at least the minimum wall thickness shown on the approved working drawings. Steel pipe micropiles shall conform to ASTM A 252, Grade 2 or 3, including tolerances for pipe diameter, edge alignment, end match marking, roundness and straightness and conform to the steel micropile splice welding requirements specified herein. The carbon equivalency (CE) as defined in AWS D 1.1, Section XI 5.1, shall not exceed 0.45. The sulfur content shall not exceed 0.05 percent.

   Steel pipe shall not be joined by welded lap splicing. Steel pipe seams and splices shall be complete penetration welds. Partial welds of steel pipe may be restored to complete penetration welds in conformance with AWS D1.1.

   The manufacturer or fabricator of steel piling shall furnish a certificate of compliance in accordance with Section 1-06.3 stating that the piling being supplied conforms to these specifications. The certificate of compliance shall include test reports for tensile and chemical tests. Samples for testing shall be taken from the base metal, steel, coil or from the manufactured or fabricated piling. The certificate of compliance shall be in English units.

   Welded circumferential joints in pipe shall develop the strength of the pipe section. Threaded pipe joints shall develop at least the nominal resistance used in the design of the micropile.

10. Plates and Shapes: Structural steel plates and shapes for micropile top attachments shall conform to either ASTM A 36 or ASTM A 572 Grade 50.

11. Reinforcing Bars: Reinforcing steel shall be deformed bars in accordance with Sections 9-07.4 or 9-07.11. When a bearing plate and nut are required to be threaded onto the top end of reinforcing bars for the micropile top to footing anchorage, the threading may be continuous spiral deformed ribbing provided by the bar deformations or may be cut into a reinforcing bar. If threads are cut into a reinforcing bar, the next larger bar number designation from that shown on the Plans shall be provided, at no additional cost to the Contracting Agency.

12. Bar tendon couplers, if required, shall develop the ultimate tensile strength of the bars without evidence of any failure.

2.02 Reinforcing Bar Corrosion Protection

Reinforcing bars for micropiles shall be epoxy coated in accordance with Section 6-02.3(24)H and 9-07.3.

Construction Requirements

3.01 General Requirements

The Contractor is responsible for furnishing of all design, materials, products, accessories, tools, equipment, services, transportation, labor and supervision, and manufacturing techniques required for design, installation and testing of micropiles and micropile top attachments for this project.

The Contractor shall select the micropile type, size, micropile top attachment, installation means and methods, shall estimate the ground to grout bond value, and shall determine the required grout bond length and final micropile diameter. The Contractor shall design and install micropiles that will develop the load capacities specified in the Plans. The micropile load capacities shall be verified by verification and proof load testing, and shall meet the test acceptance criteria specified in this Special Provision.

3.02 Contractor's Experience Requirements And Submittal

The micropile Contractor shall be experienced in the construction and load testing of micropiles and have successfully constructed at least three projects in the last five years involving construction totaling at least 50 micropiles of equal or greater capacity than required for this project.

The micropile Contractor shall have previous micropile drilling and grouting experience in soil/rock similar to project conditions. The Contractor shall submit construction details, structural details and load test results for at least three previous successful micropile load tests from different projects of similar scope to this project.

A Professional Engineer, licensed under Title 18 RCW State of Washington, employed by the micropile Contractor and having experience in the construction of at least three completed micropile projects over the past five years of similar scope to this project, shall supervise the work. The Contractor shall not use consultants or manufacturers' representatives to satisfy the supervising Engineer requirements of this section. The on-site foremen and drill rig

operators shall also have experience on at least three projects over the past five years installing micropiles of equal or greater capacity than required for this project.

The micropile Contractor shall design the micropile system. The micropile system shall be designed by a Professional Engineer, licensed under Title 18 RCW State of Washington, with experience in the design of at least three successfully completed micropile projects over the past five years, with micropiles of equal or greater capacity than required in these plans and specifications. The micropile designer may be either an employee of the Contractor or a separate Consultant designer meeting the specified experience requirements.

At least 30 calendar days before the planned start of micropile construction, the Contractor shall submit in writing the completed project reference list, including a brief project description with the owner's name and current phone numbers. The Contractor shall also submit a personnel list for the micropile system designer, supervising project Engineer, drill rig operators and on-site foremen to be assigned to the project. The personnel list shall contain a summary of each individual's experience and be complete enough for the Engineer to determine whether each individual satisfies the required qualifications. The Engineer will approve or reject the Contractor's qualifications within 15 calendar days after receipt of a complete submission Additional time required due to incomplete or unacceptable submittals will not be cause for time extension or impact or delay claims. All costs associated with incomplete or unacceptable submittals shall be borne by the Contractor.

Work shall not be started, nor materials ordered, until the Engineer's written approval of the Contractor's experience qualifications is given. The Engineer may suspend the Work if the Contractor uses non-approved personnel. If work is suspended, the Contractor shall be fully liable for all resulting costs and. no adjustment in contract time will result from the suspension.

3.03 Definitions

Admixture: Substance added to the grout to control bleed and/or shrinkage, improve flowability, reduce water content, or retard setting time.

Alignment Load (AL): A minimum initial load (5 percent DL maximum) applied to micropile during testing to keep the testing equipment correctly positioned.

Bonded Length: The length of the micropile that is bonded to the ground and conceptually to transfer the applied axial loads to the surrounding soil or rock. Also known as the load transfer length.

Bond-breaker: A sleeve placed over the steel reinforcement to prevent load transfer.

Casing: Steel tube introduced during the drilling process in overburden soil to temporarily stabilize the drill hole. This is usually withdrawn as the micropile is grouted although in certain types of micropiles, some casing is permanently left in place to provide added micropile reinforcement.

Centralizer: A device to support and position the reinforcing steel in the drill hole and/or so that a minimum grout cover is provided.

Coupler: The means by which the micropile load capacity can be transmitted from one partial of reinforcement to another.

Creep Movement: The movement that occurs during the creep test of a micropile under constant load.

Design Load (DL): The design load expected to be applied to the micropile during its service life. The design load (DL) is as specified in the bridge Plans.

Encapsulation: A corrugated or deformed tube protecting the reinforcing steel against corrosion.

Free (unbonded) length: The designed length of the micropile that is not bonded to the surrounding ground or grout.

Micropile: A small-diameter, bored, cast-in-place composite pile, in which the applied load is resisted by steel reinforcement, cement grout and frictional grout/ground bond.

Maximum Test Load: The maximum load to which the micropile is subjected during testing. The load shall be *2.5 x* DL for verification load tests and 1.67 *x* DL for proof load tests.

Nominal Grout-to-Ground Bond Strength: The estimated ultimate geotechnical unit grout-to-ground bond strength selected for use in design. Same as $\alpha_{\text{Bond Nominal Strength}}$ (SLD and LFD).

Overburden: Material, natural or placed, that may require cased drilling methods to provide an open borehole to underlying strata.

Post-grouting: The injection of additional grout into the load transfer length of a micropile after the primary grout has set. Also known as regrouting or secondary grouting.

Primary Grout: Portland-cement-based grout injected into the micropile hole prior to or after the installation of the reinforcement to direct the load transfer to the surrounding ground along the micropile.

Proof Load Test: Incremental loading of a production micropile, recording the total movement at each increment.

Reinforcement: The steel component of the micropile that accepts and/or resists applied loadings.

Sheathing: Smooth or corrugated piping or tubing that protects the reinforcing steel against corrosion.

Spacer: A device to separate elements of a multiple-element reinforcement to ensure full bond development of each steel element.

Verification Load Test: Non-production micropile load test performed to verify the design of the micropile system and the construction methods proposed, prior to installation of production micropiles.

Water: Water used in the grout mix shall conform to AASHTO T 26 and shall be potable, clean, and free from substances that may be injurious to cement and steel.

3.04 Referenced Codes and Standards

The following publications form a part of this specification to the extent indicated by the references. The latest publication as of the issue date of this specification shall govern, unless indicated otherwise.

A. American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), and WSDOT Standard Specifications

ASTM Specification	WSDOT Std. Spec. Section, or AASHTO Specification or Test	
A 36, A 572		Structural Steel
	9-07.9	Cold-Drawn Steel Wire
A 252		Welded and Seamless Steel Pipe
	9-07.3	Deformed Steel Reinforcing Bar
	9-07.11	High-Strength Steel Reinforcing Bar
	9-07.4	Epoxy -Coated Steel Reinf. Bar
	M 80	Concrete Aggregate
	T 106	Compressive Strength of Hydraulic Cement Mortar
	T 133	Density of Hydraulic Cement
	M 45	Aggregate for Masonry Mortar
	9-01.2(1)	Portland Cement
	9-23.6	Chemical Admixtures for Concrete
D 1784		Polyvinyl Chloride (PVC) Pipe (Class 13464-B)
D 3350	M 252	Polyethylene Corrugated Tubing
	9-25.1	Water for Concrete

B. American Welding Society (AWS)

1. AWS/D1.1/D1.1M Structural Welding Code-Steel

2. AWS/D1.2 Structural Welding Code-Reinforcing Steel

C. American Petroleum Institute (API)

1. 5CT Specification for casing and tubing

3.05 Construction Site Survey

The Contractor shall conform to Sections 1-02.4 and 1-07.18.

3.06 Micropile Design Requirements

The micropiles shall be designed to meet the specified loading conditions, as shown in the Plans and the working drawings as approved by the Engineer. The Contractor shall design the micropiles in accordance with the Service Load Design (SLD) design method, and shall

design the micropile top to footing connections using Load Factor Design (LFD) design method.

Steel pipe used for micropile permanent casing shall incorporate an additional 1/16 inch thickness of sacrificial steel for corrosion protection. Where required as shown in the Plans, corrosion protection of the internal steel reinforcing bars, consisting of either encapsulation (double corrosion protection), epoxy coating, or grout, shall be provided in accordance with subsection 2.01 of this Special Provision. Where permanent casing is used for a portion of the micropile, encapsulation shall extend at least five feet into the casing.

3.07 Micropile Design Submittals

At least 30 calendar days before the planned start of micropile structure construction, the Contractor shall submit complete design calculations and working drawings to the Engineer for approval in accordance with Section 6-01.9. The submittal shall include all details, dimensions, quantities, ground profiles, and cross-sections necessary to construct the micropile structure. The Contractor shall verify the limits of the micropile structure and ground survey data before preparing the detailed working drawings.

3.08 Design Calculations

Design calculations shall include, but not be limited to, the following items:

1. A written summary report which describes the overall micropile design, and its compatibility with the anticipated subsurface conditions as described by the contract test hole boring logs, the Summary of Geotechnical Conditions provided in the Appendix to the Special Provisions, and the geotechnical report(s) prepared for this project.

2. Applicable code requirements and design references.

3. Micropile structure critical design cross-section(s) geometry including soil strata and piezometric levels and location, magnitude and direction of design applied loadings, including slope or external surcharge loads.

4. Design criteria including, soil shear strengths (friction angle and cohesion), unit weights, and ground-grout bond values and micropile drillhole diameter assumptions for each soil strata.

5. Partial safety factors/strength factors (for Service Load Design) or load factors (for Load Factor Design) used in the design of the ground-grout bond values, surcharges, soil/rock and material unit weights, steel, grout, and concrete materials.

6. Design calculation sheets with the project number, micropile structure location, designation, date of preparation, initials of designer and checker, and page number at the top of each page. An index page shall be included with the design calculations.

7. Design notes including an explanation of any symbols and computer programs used in the design.

8. Other design calculations.

3.09 Working Drawings

The Contractor shall submit working drawings in accordance with Section 6-01.9.

The working drawings shall include all information required for the construction and quality control of the piling. Working drawings shall include, but not be limited to, the following items:

1. A plan view of the micropile structure identifying:

    a. A reference baseline and elevation datum.

    b. The offset from the construction centerline or baseline to the face of the micropile structure at all changes in horizontal alignment.

    c. Beginning and end of micropile structure stations.

    d. Right-of-way and permanent or temporary construction easement limits, location of all known active and abandoned existing utilities, adjacent structures or other potential interference. The centerline of any drainage structure or drainage pipe behind, passing through, or passing under the micropile structure.

    e. Subsurface exploration locations shown on a plan view of the proposed micropile structure alignment with appropriate reference base lines to fix the locations of the explorations relative to the micropile structure.

2. An elevation view of the micropile structure(s) identifying:

    a. Elevation view showing micropile locations and elevations; vertical and horizontal spacing; batter and alignment and the location of drainage elements (if applicable).

    b. Existing and finish grade profiles both behind and in front of the micropile structure.

3. Design parameters and applicable codes.

4. General notes for constructing the micropile structure including the overall construction sequence, micropile installation sequence at each footing, means and methods to prevent damage to existing adjacent piles and micropiles, and other special construction requirements.

5. A listing of the summary of quantities on the elevation drawing of each micropile structure showing pay item estimated quantities.

6. Micropile structure typical sections including micropile spacing and inclination; minimum drillhole diameter; pipe casing and reinforcing bar sizes and details; splice types and locations; centralizers and spacers; grout bond zone and casing plunge lengths and corrosion protection details; and connection details to the substructure footing, anchorage, plates, etc.

7. A typical detail of verification and production proof test micropiles defining the micropile length, minimum drillhole diameter, inclination, and load test bonded and unbonded test lengths.

8. Details, dimensions, and schedules for all micropiles, casing and reinforcing steel, including reinforcing bar bending details.

9. Details and dimensions for micropile structure appurtenances such as barriers, coping, drainage gutters, fences, etc. (if applicable).

10. Details for constructing micropile structures around drainage facilities (if applicable).

11. Details for terminating micropile structures and adjacent slope construction (if applicable).

The Contractor shall revise the approved working drawings when plan dimensions are changed due to field conditions or for other reasons. Within 30 days after completion of the work, submit as-built drawings to the Engineer.

The Contractor shall also provide revised design calculations signed by the approved Registered Professional Engineer for all design changes made during the construction of the micropile structure.

3.10 Construction Submittals

The Contractor shall prepare and submit to the Engineer, for review of completeness, 5 copies of the following for the micropile system or systems to be constructed:

1. Detailed step-by-step description of the proposed micropile construction procedure, including personnel, installation tolerances, testing, and equipment to assure quality control. This step-by-step procedure shall be shown on the working drawings in sufficient detail to allow the Engineer to monitor the construction and quality of the micropiles.

2. Discussion of how the Contractor's construction methods accommodate and are compatible with the anticipated subsurface conditions as described in the contract test hole boring logs, the Summary of Geotechnical Conditions provided in the Appendix to the Special Provisions, and the geotechnical report(s) prepared for this project.

3. Proposed start date and time schedule and micropile installation schedule providing the following:

    Micropile number
    Micropile design load
    Type and size of reinforcing steel
    Minimum total bond length
    Total micropile length
    Micropile top footing attachment

4. If welding of casing is proposed, the Contractor shall submit the proposed welding procedure for approval by the Engineer.

5. Manufacturer's information, model, size, and type of equipment to be used for installing micropiles, with appropriate manufacturer's literature for review. Include detailed description of the drilling equipment and methods proposed to be used to provide drillhole support and prevent detrimental ground movements.

6. Information on headroom and space requirements for installation equipment that verify the proposed equipment can perform at the site. Plan describing how surface water, drill flush, and excess waste grout will be controlled, contained, collected, and disposed of.

7. Certified mill test reports for the reinforcing steel and for the casing used in micropile installation. The ultimate strength, yield strength, elongation, and material properties composition shall be included. Tag sample verification may be substituted in place of certified mill test reports for micropile casing.

8. Proposed Grouting Plan. The grouting plan shall include complete descriptions, details, and supporting calculations for the following:

    a. Grout mix design and type of materials to be used in the grout including certified test data and trial batch reports.

    b. Grouting equipment, including capacity and relation to the grouting demand and working conditions as well as provisions for back-up equipment and spare parts.

    c. Types and sizes of grout hoses, connections, and grout delivery systems.

    d. Methods and equipment for placing, positioning, and supporting the steel pipe casing and reinforcing bars.

    e. Methods and equipment for accurately monitoring and recording the grout depth, grout volume and grout pressure as the grout is being placed.

    f. Procedures and schedules for grout batching, mixing, and pumping including provisions for handling drilling fluid and for post grouting.

    g. Grouting rate calculations, when requested by the Engineer. The calculations shall be based on the initial pump pressures or static head on the grout and losses throughout the placing system, including anticipated head of drilling fluid to be displaced.

    h. Contingency procedures for handling blockage of ducts or equipment breakdowns.

    i. Estimated curing time for grout to achieve specified strength. Previous test results for the proposed grout mix completed within one year of the start of grouting may be submitted for initial verification and acceptance and start of production work. During production, grout shall be tested in accordance with subsection 3.20 of this Special Provision.

j. Procedure and equipment for Contractor monitoring of grout quality.

9. Detailed plans for the proposed micropile load testing method. This shall include all drawings, details, and structural design calculations necessary to clearly describe the proposed test method, reaction load system capacity and equipment setup, types and accuracy of apparatus to be used for applying and measuring the test loads and micropile top movements in accordance with subsection 3.22 of this Special Provision.

10. Calibration reports and data for each test jack, pressure gauge and master pressure gauge and electronic load cell to be used. The calibration tests shall have been performed by an independent testing laboratory, and tests shall have been performed within 90 calendar days of the date submitted. Testing shall not commence until the Engineer has reviewed and accepted the jack, pressure gauge, master pressure gauge and electronic load cell calibration data.

11. Discussion of the Contractor's contingency plan if a verification load test or a proof load test fails.

Work shall not begin until the construction submittals have been received, reviewed, and accepted in writing by the Engineer. Provide submittal items 1 through 6 at least 21 calendar days prior to initiating micropile construction and submittal items 7 through 11 at least 7 days prior to start of micropile load testing or incorporation of the respective materials into the work. The Contractor shall allow the Engineer 7 calendar days to review the construction submittals after a complete set has been received. Additional time required due to incomplete or unacceptable submittals shall not be cause for delay or impact claims. All costs associated with incomplete or unacceptable Contractor submittals shall be the responsibility of the Contractor.

3.11 Pre-construction Meeting

A pre-construction meeting will be scheduled by the Engineer and held prior to the start of micropile construction. The Engineer, prime Contractor, micropile specialty Contractor, and excavation Contractor shall attend the meeting. Attendance is mandatory. The pre-construction meeting will be conducted to clarify the construction requirements for the work, to coordinate the construction schedule and activities, and to identify contractual relationships and delineation of responsibilities amongst the prime Contractor and the various Subcontractors - specifically those pertaining to excavation for micropile structures, anticipated subsurface conditions, micropile installation and testing, micropile structure survey control and site drainage control.

3.12 Site Drainage Control

The Contractor shall control and properly dispose of drill flush and construction related waste, including excess grout, in accordance with Section 1-07.5(3) as supplemented in these Special Provisions and all applicable local codes and regulations. The Contractor shall provide positive control and discharge of all surface water that will affect construction of the micropile installation. The Contractor shall maintain all pipes or conduits used to control surface water during construction. The Contractor shall repair damage caused by surface water in accordance with Section 1-07.13. Upon substantial completion of the work, the Contractor shall remove surface water control pipes or conduits from the site. Alternatively,

with the approval of the Engineer, pipes or conduits that are left in place may be fully grouted and abandoned or left in a way that protects the structure and all adjacent facilities from migration of fines through the pipe or conduit and potential ground loss.

3.13 Excavation

The Contractor shall coordinate the work and the excavation so the micropile structures are safely constructed. The Contractor shall perform the micropile construction and related excavation in accordance with the Plans and approved submittals.

3.14 Micropile Allowable Construction Tolerances

1. Centerline of piling shall not be more than 3 inches from indicated plan location.

2. Micropile shall be plumb within 2 percent of total-length plan alignment.

3. Top elevation of micropile shall be plus 1 inch or minus 2 inch maximum from vertical elevation indicated.

4. Centerline of reinforcing steel shall not be more than 1/2 inch from indicated location.

3.15 Micropile Installation

The micropile Contractor shall select the drilling method, the grouting procedure, and the grouting pressure used for the installation of the micropiles. The micropile Contractor shall also determine the micropile casing size, final drillhole diameter and bond length, and central tendon reinforcement steel sizing necessary to develop the specified load capacities and load testing requirements. The micropile Contractor is also responsible for estimating the grout take. There will be no extra payment for grout overruns. The bond zone for micropiles shall be below the following elevations:

Pier 93 West	-26.0
Pier 93 East	-26.0
Pier 94 West	-27.0
Pier 94 East	-23.0

3.16 Drilling

The drilling equipment and methods shall be suitable for drilling through the conditions to be encountered, without causing damage to any overlying or adjacent structures or services. The drillhole shall be open along its full length to at least the design minimum drillhole diameter prior to placing grout and reinforcement. Temporary casing or other approved method of micropile drillhole support will be required in caving or unstable ground to permit the micropile shaft to be formed to the minimum design drillhole diameter. The Contractor's proposed method(s) to provide drillhole support and to prevent detrimental ground movements shall have received the approval of the Engineer. Detrimental ground movement is defined as movement which requires remedial repair measures. Use of drilling fluid containing bentonite is not allowed.

3.17 Ground Heave or Subsidence

During construction, the Contractor shall observe the conditions in the vicinity of the micropile construction site on a daily basis for signs of ground heave or subsidence. The Contractor shall immediately notify the Engineer if signs of movements are observed. The Contractor shall immediately suspend or modify drilling or grouting operations if ground heave or subsidence is observed, if the micropile structure is adversely affected, or if adjacent structures are damaged from the drilling or grouting. If the Engineer determines that the movements require corrective action, the Contractor shall take corrective actions necessary to stop the movement or perform repairs.

When due to the Contractor's methods or operations or failure to follow the specified/approved construction sequence, as determined by the Engineer, the costs of providing corrective actions will be borne by the Contractor in accordance with Section 1-07.13. When due to differing site conditions, as determined by the Engineer, the costs of providing corrective actions will be addressed in accordance with Section 1-04.4.

3.18 Pipe Casing and Reinforcing Bars Placement and Splicing

Reinforcement may be placed either prior to grouting or placed into the grout - filled drillhole before temporary casing (if used) is withdrawn. Reinforcement surface shall be free of deleterious substances such as soil, mud, grease or oil that might contaminate the grout or coat the reinforcement and impair bond. Micropile cages and reinforcement groups, if used, shall be sufficiently robust to withstand the installation and grouting process and the withdrawal of the drill casings without damage or disturbance.

The Contractor shall check micropile top elevations and adjust all installed micropiles to the planned elevations.

Permanent casing shall be installed to the following minimum tip elevations:

Pier 93 West	-26.0
Pier 93 East	-26.0
Pier 94 West	-27.0
Pier 94 East	-23.0

Centralizers and spacers shall be provided at 10 feet centers maximum spacing. The upper and lower most centralizer shall be located a maximum of 5 feet from the top and bottom of the micropile. Centralizers and spacers shall permit the free flow of grout without misalignment of the reinforcing bar(s) and permanent casing. The central reinforcement bars with centralizers shall be lowered into the stabilized drill hole and set. The reinforcing steel shall be inserted into the drill hole to the desired depth without difficulty. Partially inserted reinforcing bars shall not be driven or forced into the hole. The Contractor shall redrill and reinsert reinforcing steel when necessary to facilitate insertion.

Lengths of casing and reinforcing bars to be spliced shall be secured in proper alignment and in a manner to avoid eccentricity or angle between the axes of the two lengths to be spliced. Splices and threaded joints shall meet the requirements of item 9 of subsection 2.01 of this Special Provision. Threaded pipe casing joints shall be located at least two casing diameters (OD) from a splice in any reinforcing bar. When multiple bars are used, bar splices shall be staggered at least 1 foot.

3.19 Grouting

Micropiles shall be primary grouted the same day the load transfer bond length is drilled. Prior to grouting, the drillhole shall be flushed with water and/or air to remove drill cuttings. The Contractor shall use a neat cement grout or a sand cement grout with a minimum seven day unconfined compressive strength of 4000 psi. Admixtures, if used, shall be mixed in accordance with manufacturer's recommendations.

The grouting equipment shall be colloidal mixers only (paddle mixers and other non-colloidal types of mixers shall not be used), and shall produce a grout free of lumps and undispersed cement. Contractor shall have means and methods of measuring the grout quantity and pumping pressure during the grouting operations. The grout pump shall be equipped with a pressure gauge to monitor grout pressures. A second pressure gauge shall be placed at the point of injection into the micropile top. The pressure gauges shall be capable of measuring pressures of at least 150 psi or twice the actual grout pressures used, whichever is greater. The grout shall be kept in agitation prior to mixing. Grout shall be placed within one hour of mixing. The grouting equipment shall be sized to enable each micropile to be grouted in one continuous operation.

The grout shall be injected from the lowest point of the drill hole and injection shall continue until uncontaminated grout flows from the top of the micropile. The grout may be pumped through grout tubes, casing, hollow-stem augers, or drill rods. Temporary casing, if used, shall be extracted in stages ensuring that after each length of casing is removed the grout level is brought back up to the ground level before the next length is removed. Additional grout shall be placed by the use of a tremie pipe at all times. The tremie pipe shall always extend below the level of the existing grout in the drillhole. The grout pressures and grout takes shall be controlled to prevent excessive heave or fracturing of rock or soil formations. Upon completion of grouting, the grout tube may remain in the hole, but must be filled with grout.

If the Contractor elects to use a postgrouting system, working drawings and details shall be submitted to the Engineer for review in accordance with subsection 3.10 of this Special Provision.

3.20 Grout Testing

Grout within the micropile verification and proof test micropiles shall attain the minimum specified seven day design compressive strength prior to load testing. Previous test results for the proposed grout mix completed within one year of the start of work may be submitted for initial verification of the required compressive strengths for installation of pre-production verification test micropiles and initial production micropiles. During placement of initial verification micropiles, proof test micropiles, and production micropiles, micropile grout will be sampled and tested by the Engineer for compressive strength in accordance with WSDOT Test Method 813 and AASHTO T 106 at a frequency of no less than one set of three 2 inch grout cubes from each grout plant each day of operation or per every 10 micropiles, whichever occurs more frequently. The compressive strength will be the average of the 3 cubes tested.

If a compressive strength test fails, the Engineer may require the Contractor to proof test some or all of the production micropiles installed since the last grout batch that met the specified compressive strength.

3.21 Micropile Installation Records

The Contractor shall prepare and submit to the Engineer full-length installation records for each micropile installed. The records shall be submitted within the same work shift that micropile installation is completed. The data shall be recorded in the micropile installation log. A separate log shall be provided for each micropile.

3.22 Micropile Load Tests

The Contractor shall perform verification and proof testing of micropiles at the locations specified in this Special Provision or as otherwise specified by the Engineer, and shall perform tension load testing in accordance with ASTM D 3689, except as modified by this Special Provision. All load testing shall be performed in tension.

While completed production micropiles may be used as part of the reaction frame for proof load testing, no reaction bearing elements of the load test frame for verification and proof load testing of micropiles shall bear on existing footing or other structure elements of the existing viaduct.

3.23 Verification Load Tests

The Contractor shall perform pre-production verification micropile load testing to verify the design of the micropile system and the construction methods proposed prior to installing any production micropiles. Sacrificial verification test micropiles shall be constructed in conformance with the working drawing submittal as approved by the Engineer. A verification test micropile shall be installed at each of the following locations:

Within 30 feet of either Pier 93 East or Pier 94 East as shown in the Plans
Within 30 feet of Pier 94 West as shown in the Plans

Verification load tests shall be performed to verify that the Contractor installed micropiles will meet the required compression and tension load capacities and load test acceptance criteria and to verify that the length of the micropile load transfer bond zone is adequate. The micropile verification load test results shall verify the Contractor's design and installation methods, and be reviewed and accepted by the Engineer prior to the installation of production micropiles.

The drilling-and-grouting method, casing length and outside diameter, reinforcing bar lengths, and depth of embedment for the verification test micropile(s) shall be identical to those specified for the production micropiles at the given locations. The verification test micropile structural steel sections shall be sized to safely resist the maximum test load. The maximum verification and proof test loads applied to the micropile shall not exceed 80 percent of the structural capacity of the micropile structural elements, to include steel yield in tension.

The jack shall be positioned at the beginning of the test such that unloading and repositioning during the test will not be required.

3.24 Testing Equipment and Data Recording

Testing equipment shall include dial gauges, dial gauge support, jack and pressure gauge, electronic load cell, and a reaction frame. The load cell is required only for the creep test portion of the verification test. The Contractor shall provide a description of test setup and jack, pressure gauge and load cell calibration curves in accordance with subsection 3.09 of

this Special Provision. Additionally, the Contractor shall not use test jacks, pressure gauges and master pressure gauges, and electronic load cells greater than 90 calendar days past their most recent calibration date, until such items are recalibrated by an independent testing laboratory.

The Contractor shall design the testing reaction frame to be sufficiently rigid and of adequate dimensions such that excessive deformation of the testing equipment does not occur. The Contractor shall align the jack, bearing plates, and stressing anchorage such that unloading and repositioning of the equipment will not be required during the test.

The Contractor shall apply and measure the test load with a hydraulic jack and pressure gauge. The pressure gauge shall be graduated in 75 psi increments or less. The jack and pressure gauge shall have a pressure range not exceeding twice the anticipated maximum test pressure. Jack ram travel shall be sufficient to allow the test to be done without resetting the equipment. The Contractor shall monitor the creep test load hold during verification tests with both the pressure gauge and the electronic load cell. The Contractor shall use the load cell to accurately maintain a constant load hold during the creep test load hold increment of the verification test.

The Contractor shall measure the micropile top movement with a dial gauge capable of measuring to 1 mil (0.001 inch). The dial gauge shall have a travel sufficient to allow the test to be done without having to reset the gauge. The Contractor shall visually align the gauge to be parallel with the axis of the micropile and support the gauge independently from the jack, micropile or reaction frame. The Contractor shall use two dial gauges when the test setup requires reaction against the ground or single reaction micropiles on each side of the test micropile.

The required load test data will be recorded by the Engineer.

3.25 Verification Test Loading Schedule

The Contractor shall test the verification micropiles designated for tension load testing to a maximum test load of 2.5 times the micropile Design Load shown in the Plans or the working drawing submittal as approved by the Engineer. The verification micropile load tests shall be made by incrementally loading the micropile in accordance with the following cyclic load schedule:

AL = Alignment Load DL = Design Load

LOAD	HOLD TIME
AL	1 minute
0.25 DL	1 minute
0.50 DL	1 minute
AL	1 minute
0.25 DL	1 minute
0.50 DL	1 minute
0.75 DL	1 minute
1.00 DL	1 minute
AL	1 minute
0.25 DL	1 minute
0.50DL	1 minute
0.75 DL	1 minute

1.00DL	1 minute
0.25 DL	1 minute
0.50 DL	1 minute
0.75 DL	1 minute
1.00DL	1 minute
1.25DL	1 minute
1.50DL	1 Minute
1.67 DL	60 minutes (Creep Test Load Hold)
1.75 DL	1 minute
2.00 DL	1 minute
2.25 DL	1 minute
2.50 DL	10 minutes (Maximum Test Load)
AL	1 minute

The test load shall be applied in increments of 25 percent of the DL load. Each load increment shall be held for a minimum of 1 minute. Micropile top movement shall be measured at each load increment. The load-hold period shall start as soon as each test load increment is applied. The verification test micropile shall be monitored for creep at the 1.67 Design Load (DL). Micropile movement during the creep test shall be measured and recorded at 1, 2, 3, 4, 5, 6, 10, 20, 30, 50, and 60 minutes. The alignment load shall not exceed 5 percent of the DL load. Dial gauges shall be reset to zero after the initial AL is applied.

The acceptance criteria for micropile verification load tests are:

1. The micropile shall sustain the first tension 1.67DL test load with no more than 0.50 inch total vertical movement at the top of the micropile, relative to the position of the top of the micropile prior to testing.

2. At the end of the 1.67 DL creep test load increment, test micropiles shall have a creep rate not exceeding 0.03125 inch/log cycle time (1 to 10 minutes) or 0.0625 inch/log cycle time (6 to 60 minutes). The creep rate shall be linear or decreasing throughout the creep load hold period.

3. Failure does not occur at the 2.5 DL maximum test load. Failure is defined as load at which attempts to further increase the test load simply result in continued micropile movement.

The Engineer will provide the Contractor written confirmation of the micropile design and construction within three working days of the completion of the verification load tests. This written confirmation will either confirm the capacities and bond lengths specified in the working drawing submittal as approved by the Engineer or will reject the micropiles based upon the verification test results.

3.26 Verification Test Micropile Rejection

If a verification tested micropile fails to meet the acceptance criteria, the Contractor shall modify the design, the construction procedure, or both. These modifications may include modifying the installation methods, increasing the bond length, or changing the micropile type. Any modification that necessitates changes to the structure will require the Engineer's

prior review and acceptance. Any modifications of design or construction procedures or cost of additional verification test micropiles and load testing shall be at no additional expense to the Contracting Agency. At the completion of verification testing, test micropiles shall be removed down to an elevation two feet below finished ground line, except as otherwise specified by the Engineer.

3.27 Proof Load Tests

A minimum of two successful proof load tests shall be completed at each footing at micropile locations as specified by the Engineer. Additional proof tests will be required if modifications are made in the micropile installation methods subsequent to the first production micropile.

3.28 Proof Test Loading Schedule

Test micropiles designated for proof testing shall be tension proof load tested to a maximum test load of 1.67 times the micropile Design Load shown in the Plans or the working drawings as approved by the Engineer. Proof tests shall be conducted by incrementally loading the micropile in accordance with the following schedule, to be used for both compression and tension loading:

AL = Alignment Load DL = Design Load

LOAD	HOLD TIME
AL	1 minute
0.25 DL	1 minute
0.50 DL	1 minute
0.75 DL	1 minute
1.00DL	1 minute
1.25DL	1 minute
1.50DL	1 minute
1.67 DL	10 or 60 minute
AL	1 minute

Depending on performance, either a 10 minute or 60 minute creep test shall be performed at the 1.67 DL Maximum Test Load. Where the micropile top movement between 1 and 10 minutes exceeds 0.03125 inch, the Maximum Test Load shall be maintained an additional 50 minutes. Movements shall be recorded at 1, 2, 3, 5, 6, 10, 20, 30, 50 and 60 minutes. The alignment load shall not exceed 5 percent of DL. Dial gauges shall be reset to zero after the initial AL is applied.

The acceptance criteria for micropile proof load tests are:

1. The micropile shall sustain the tension maximum test load applied (1.67 DL) with no more than 0.50 inch total vertical movement at the top of the micropile, relative to the position of the top of the micropile prior to testing.

2. At the end of the 1.67 DL creep test load increment, test micropiles shall have a creep rate not exceeding 0.03125 inch/log cycle time (1 to 10 minutes) or 0.0625 inch/log cycle time (6 to 60 minutes). The creep rate shall be linear or decreasing throughout the creep load hold period.

3.29 Proof Test Micropile Rejection

If a proof-tested micropile fails to meet the acceptance criteria, the Contractor shall proof test another micropile within that footing as selected by the Engineer. For failed micropiles and further construction of subsequent micropiles, the Contractor shall modify the design, the construction procedure, or both. These modifications may include installing replacement micropiles, incorporating micropiles at not more than 50 percent of the maximum load attained, post grouting, modifying installation methods, increasing the bond length, or changing the micropile type. Any modification that necessitates changes to the structure design will require the Engineer's prior review and acceptance.

Measurement

4.01 Micropile

Micropiles will be measured per each, for each micropile installed and accepted.

Micropile verification load testing will be measured per each for each successfully completed and accepted micropile verification load test.

Micropile proof load testing will be measured per each for each successfully completed and accepted micropile proof load test.

Payment

5.01 Micropile

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

"Micropile", per each.
The unit contract price per each for "Micropile" shall be full pay for performing the work as specified, including drilling the hole for the micropile, furnishing, and placing the casing, steel reinforcing bar, grout (including grout overruns), and micropile top attachments.

"Micropile Verification Load Testing", per each.
"Micropile Proof Load Testing", per each.
The unit contract price per each for "Micropile Verification Load Testing" and "Micropile Proof Load Testing" shall be full pay for performing the work as specified, including furnishing and installing verification load test micropiles, performing all additional verification load tests and proof load tests required due to previous test failures, performing all design and construction procedure modifications of design or construction procedures required as a result of the load test results, and providing any increase in strength of the verification test micropile elements above the strength required for the production micropiles.

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

WATER MAINS

Materials

Section 7-09.2 is supplemented with the following:

The mechanical joint restraints shall be ductile iron, meeting the requirements of ASTM A536. Mechanical joint restraints shall be split-ring, consisting of multiple gripping wedges incorporated into a follower gland.

Construction Requirements

Section 7-09.3(21) is supplemented with the following:

(******)

Water Main Concrete Thrust Collar and Mech. Joint Restraint

The water main concrete thrust collars and mechanical joint restraints shall be constructed as detailed in the Plans.

A minimum of 30 calendar days prior to beginning water main work, the Contractor shall submit a plan to the Engineer for approval in accordance with Section 6-01.9. The plan shall include, but not be limited to, the proposed methods and materials for installing all components in the vicinity of the existing concrete thrust block. A proposed sequence of operations shall outline the starting date and timeline of construction activities, including testing and backfilling. Submittals shall include materials for the concrete thrust collar including mechanical joint restraints, polyethylene wrap with tape, and the procedures for all work required near the existing concrete thrust block.

The water main concrete thrust collars shall be cast in place and formed on all sides, except the bottom surface which will bear against undisturbed soil. Concrete shall be kept clear of all joints, fittings, bolts, etc to allow for future dismantling and removal.

The Contractor shall coordinate through the Engineer to allow SPU to prepare for the waterline shut down. The waterline shall be out of service and de-pressurized during the time of construction. No construction activities shall begin on Bent 93W until the concrete for the thrust collar has reached the compressive strength of 4000 psi.

Measurement

Section 7-09.4 is supplemented with the following:

(******)

No specific unit of measurement will apply, but measurement will be for the lump sum total of all labor, equipment, and materials required for completing the water main work as specified.

Payment

Section 7-09.5 is supplemented with the following:

(******)

"Water Main Conc. Thrust Collars and Mech. Jt. Restraints", lump sum.

The lump sum contract price for "Water Main Conc. Thrust Collars and Mech. Jt. Restraints" shall be full pay for all costs to complete the water main work as specified, including furnishing materials, excavation, installation, testing, and backfilling.

DIVISION 8
MISCELLANEOUS CONSTRUCTION

CHAIN LINK FENCE AND WIRE FENCE

Description

Section 8-12.1 is supplemented with the following:

(******)

This work shall also include furnishing, installing, resetting, and removing temporary construction fence.

Materials

Section 8-12.2 is supplemented with the following:

(******)

Temporary Construction Chain Link Fence

Temporary fencing shall be composed of portable sectional chain link fence on commercial grade concrete blocks. The fencing sections shall measure no less than 6 feet in height. The length of each section shall not exceed 10 feet.

Construction Requirements

Section 8-12.3 is supplemented with the following:

(******)

The Contractor shall install temporary chain link fence around the work area needed for construction, as shown in the Plans.

Temporary construction fencing shall be set into temporary concrete bases. The sections shall be placed in a neat tight line.

The Contractor shall maintain a secure, enclosed work site during non-working hours with no openings or gaps in the temporary fence line.

The Contractor shall remove the temporary fencing for the duration of the suspension of contract time, as specified in Section 1-08 as supplemented in these Special Provisions. The Contractor shall reset the temporary chain link fence when work resumes after contract suspension.

Measurement

Section 8-12.4 is supplemented with the following:

(******)

Temporary construction fence will be measured one time only, by the linear foot of completed installation of temporary chain link fence. No measurement will be made for resetting temporary construction fence at the end of work shifts. No measurement will be made for resetting temporary construction fence after contract activity resumes following suspension of contract time.

Payment

Section 8-12.5 is supplemented with the following:

(******)

"Temporary Construction Fence", per linear foot.

The unit contract price per linear foot for "Temporary Construction Fence" shall include all costs for furnishing, installing, resetting and removal of temporary construction fence as specified. No reimbursement will be made for temporary construction fence installed for the convenience of the Contractor.

DIVISION 9
MATERIALS

APPENDICES
(July 12, 1999)

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

*** APPENDIX A:
Log of Test Borings, Pages 1 through 32.

APPENDIX B:
Summary of Geotechnical Conditions, Pages 1 through 3.

APPENDIX C:
City of Seattle Standard Plan Curb Detail, Page 1 of 1.

APPENDIX D:
Seattle City Light Material Standards, Page 1 through Page 6.

STANDARD PLANS
August 6, 2007

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01 transmitted under Publications Transmittal No. PT 07-008, effective April 2, 2007 is made a part of this contract.

The Standard Plans are revised as follows:

All Standard Plans
All references in the Standard Plans to "Asphalt Concrete Pavement" shall be revised to read "Hot Mix Asphalt".

All references in the Standard Plans to the abbreviation "ACP" shall be revised to read "HMA".

C-1 Sheet 1
In the TYPE 1 ALTERNATIVE, the title of the first section view is revised to INITIAL INSTALLATION

C-1a
In the TYPE 11, WOOD POST ASSEMBLY, the 18" long Button Head Bolts are revised to 25" long.

C-1b
In the ANCHOR POST ASSEMBLY, the above ground 7 1/2" long bolt connecting the Wood Breakaway Post to the Foundation Tube is revised to 10" long.

C-11b Sheets 1 and 2
In the PRECAST FOOTING, ELEVATION view (Sheet 1) and in the CAST-IN-PLACE FOOTING, ELEVATION view (Sheet 2), COMMERCIAL CONCRETE is revised to CONCRETE CLASS 4000.

In the BREAKAWAY ANCHOR ANGLE, ELEVATION view (Sheet 2), the welding symbols are revised to indicate that the 1/4" Inside Gussets have 1/4" fillet weld joints, and the 1/2" End Gussets have 1/2" fillet weld joints.

D-1a Sheet 2 & D-1b Sheet 2
Reinforcing Steel Bar marked "R1" (see lower left corner): the dimension 1' - 2 1/2" is revised to 1' - 0 1/2".

F-10.62-00 Sheet 1
The length of the Tangent Block is revised to: **30" MIN. to 60" MAX.**

F-10.64-00
Revised to add Note: "The dual faced curb may be constructed by using two precast concrete sloped mountable curbs (longitudinal halves) so long as the installation is consistent with the dimensions shown in the Plan."

G-3 Sheet 1
In the END VIEW of the truss: the 2' - 6" width of the truss is revised to 2' – 9".

G-8b Sheets 1 and 2
In DETAIL's "A" and "B", the 4" dimension for the distance from the Bottom of Sign (Secondary Sign) to the Breakaway Hinge Plates is omitted.

G-8f
In DETAIL "A", the distance from the Top of Sign to the Top of Sign Post is revised from ≈ 7" to ≈ 2".

G-8g Sheet 1
In the ELEVATION views, in the labels LOWER SIGN POST SUPPORT: the parenthetical specification "12 GAGE" is revised to "7 GAGE".

I-10
In NOTE 1: the reference to Standard Specification 8-01.3(**5**)A is revised to Standard Specification 8-01.3(**6**)A.

J-1b Sheet 1
The FOUNDATION DETAIL shown is obsolete, use the foundation detail sheet included in the contract plans if this item of work is required. (See Design Standards Plan Sheet Library, Plan Reference No. IS-2).

K-80.30-00
In the NARROW BASE, END view, the reference to Std. Plan C-8e is revised to Std. Plan K-80.35

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown

in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-1 ..... 10/24/06	A-3 ..... 5/30/02	A-6 ..... 2/24/03
A-2 ..... 12/20/06	A-5 ..... 2/24/03	A-7 ..... 10/04/05
B-5.20-00 ..... 6/01/06	B-30.50-00 ..... 6/01/06	B-75.20-00 ..... 6/01/06
B-5.40-00 ..... 6/01/06	B-30.70-00 ..... 6/01/06	B-75.50-00 ..... 6/08/06
B-5.60-00 ..... 6/01/06	B-30.80-00 ..... 6/08/06	B-75.60-00 ..... 6/08/06
B-10.20-00 ..... 6/01/06	B-30.90-00 ..... 6/08/06	B-80.20-00 ..... 6/08/06
B-10.40-00 ..... 6/01/06	B-35.20-00 ..... 6/08/06	B-80.40-00 ..... 6/01/06
.....		
B-10.60-00 ..... 6/08/06	B-35.40-00 ..... 6/08/06	B-82.20-00 ..... 6/01/06
B-15.20-00 ..... 6/01/06	B-40.20-00 ..... 6/01/06	B-85.10-00 ..... 6/01/06
B-15.40-00 ..... 6/01/06	B-40.40-00 ..... 6/01/06	B-85.20-00 ..... 6/01/06
B-15.60-00 ..... 6/01/06	B-45.20-00 ..... 6/01/06	B-85.30-00 ..... 6/01/06
B-20.20-01 ..... 11/21/06	B-45.40-00 ..... 6/01/06	B-85.40-00 ..... 6/08/06
B-20.40-01 ..... 11/21/06	B-50.20-00 ..... 6/01/06	B-85.50-00 ..... 6/08/06
B-20.60-01 ..... 11/21/06	B-55.20-00 ..... 6/01/06	B-90.10-00 ..... 6/08/06
B-25.20-00 ..... 6/08/06	B-60.20-00 ..... 6/08/06	B-90.20-00 ..... 6/08/06
B-25.60-00 ..... 6/01/06	B-60.40-00 ..... 6/01/06	B-90.30-00 ..... 6/08/06
B-30.10-00 ..... 6/08/06	B-65.20-00 ..... 6/01/06	B-90.40-00 ..... 6/08/06
B-30.20-01 ..... 11/21/06	B-65.40-00 ..... 6/01/06	B-90.50-00 ..... 6/08/06
B-30.30-00 ..... 6/01/06	B-70.20-00 ..... 6/01/06	B-95.20-00 ..... 6/08/06
B-30.40-00 ..... 6/01/06	B-70.60-00 ..... 6/01/06	B-95.40-00 ..... 6/08/06
C-1 ..... 2/06/07	C-3b 10/04/05	C-13 ..... 4/16/99
C-1a 7/31/98	C-3c 6/21/06	C-13a 4/16/99
C-1b 10/31/03	C-3d 3/03/05	C-13b 4/16/99
C-1c 5/30/97	C-4 ..... 2/21/07	C-14a 7/26/02
C-1d 10/31/03	C-4a 2/21/07	C-14b 7/26/02
C-2 ..... 1/06/00	C-4b 6/08/06	C-14c 7/26/02
C-2a 6/21/06	C-4e 2/20/03	C-14d 7/26/02
C-2b 6/21/06	C-4f 6/30/04	C-14e 7/26/02
C-2c 6/21/06	C-5 ..... 10/31/03	C-14f 9/02/05
C-2d 6/21/06	C-6 ..... 5/30/97	C-14g 11/21/06
C-2e 6/21/06	C-6a 3/14/97	C-14h 1/11/06
C-2f 3/14/97	C-6c 1/06/00	C-14i 12/02/03
C-2g 7/27/01	C-6d 5/30/97	C-14j 12/02/03
C-2h 3/28/97	C-6f 7/25/97	C-14k 1/11/06
C-2i 3/28/97	C-7 ..... 10/31/03	C-16a 11/08/05
C-2j 6/12/98	C-7a 10/31/03	C-16b 11/08/05
C-2k 7/27/01	C-8 ..... 4/27/04	C-20.14-00 ..... 2/06/07
C-2n 7/27/01	C-8a 7/25/97	C-20.40-00 ..... 2/06/07
C-2o 7/13/01	C-8b 1/11/06	C-22.40-00 ..... 2/06/07
C-2p 10/31/03	C-8e 2/21/07	C-23.60-00 ..... 2/06/07
C-2q 3/03/05	C-8f 6/30/04	C-25.18-00 ..... 2/06/07
C-2r 3/03/05	C-10 ..... 7/31/98	C-25.20-00 ..... 2/06/07
C-2s 3/03/05	C-11 ..... 5/20/04	C-25.22-00 ..... 2/21/07
C-2t 3/03/05	C-11a 5/20/04	C-28.40-00 ..... 2/06/07
C-3 ..... 10/04/05	C-11b 5/20/04	
C-3a 10/04/05	C-12 ..... 7/27/01	

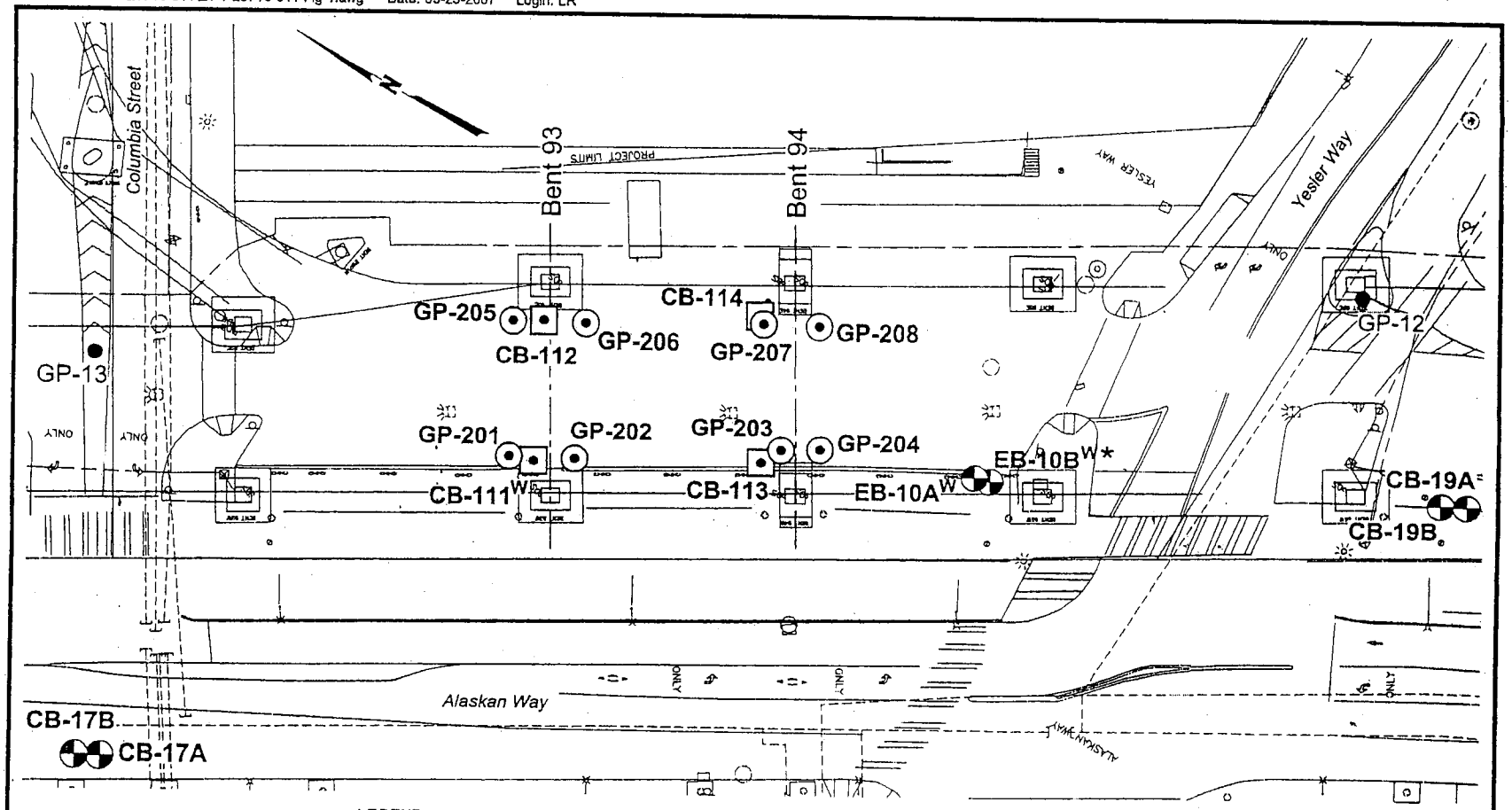
D-1a 1/23/02	D-2.30-00 ..... 11/10/05	D-2.80-00 ..... 11/10/05
D-1b 10/06/99	D-2.32-00 ..... 11/10/05	D-2.82-00 ..... 11/10/05
D-1c 10/06/99	D-2.34-00 ..... 11/10/05	D-2.84-00 ..... 11/10/05
D-1d 10/06/99	D-2.36-00 ..... 11/10/05	D-2.86-00 ..... 11/10/05
D-1e 1/23/02	D-2.38-00 ..... 11/10/05	D-2.88-00 ..... 11/10/05
D-1f 10/06/99	D-2.40-00 ..... 11/10/05	D-2.92-00 ..... 11/10/05
D-2.02-00 ..... 11/10/05	D-2.42-00 ..... 11/10/05	D-3 ..... 7/13/05
D-2.04-00 ..... 11/10/05	D-2.44-00 ..... 11/10/05	D-3a 6/30/04
D-2.06-00 ..... 11/10/05	D-2.46-00 ..... 11/10/05	D-3b 6/30/04
D-2.08-00 ..... 11/10/05	D-2.48-00 ..... 11/10/05	D-3c 6/30/04
D-2.10-00 ..... 11/10/05	D-2.60-00 ..... 11/10/05	D-4 ..... 12/11/98
D-2.12-00 ..... 11/10/05	D-2.62-00 ..... 11/10/05	D-6 ..... 6/19/98
D-2.14-00 ..... 11/10/05	D-2.64-00 ..... 11/10/05	D-7 ..... 10/06/99
D-2.16-00 ..... 11/10/05	D-2.66-00 ..... 11/10/05	D-7a 10/06/99
D-2.18-00 ..... 11/10/05	D-2.68-00 ..... 11/10/05	D-9 ..... 12/11/98
D-2.20-00 ..... 11/10/05	D-2.78-00 ..... 11/10/05	
E-1 ..... 2/21/07	E-4 ..... 8/27/03	
E-2 ..... 5/29/98	E-4a 8/27/03	
F-10.12-00 ..... 12/20/06	F-10.64-00..... 1/23/07	F-40.15-00..... 2/07/07
F-10.16-00 ..... 12/20/06	F-30.10-00..... 1/23/07	F-40.16-00..... 2/07/07
F-10.40-00 ..... 1/23/07	F-40.10-00..... 2/07/07	F-40.18-00..... 2/07/07
F-10.42-00 ..... 1/23/07	F-40.12-00..... 2/07/07	F-80.10-00..... 1/23/07
F-10.62-00 ..... 1/23/07	F-40.14-00..... 2/07/07	
G-1 ..... 2/21/07	G-6 ..... 8/27/03	G-8e 8/18/04
G-2 ..... 6/04/02	G-6a 8/27/03	G-8f 11/09/05
G-2a 6/04/02	G-6b 8/27/03	G-8g 11/09/05
G-3 ..... 11/09/05	G-7 ..... 6/08/06	G-9a 6/25/02
G-3a 11/09/05	G-8a 12/15/04	G-9b 6/08/06
G-3b 11/09/05	G-8b 11/09/05	G-9d 6/08/06
G-4a 11/09/05	G-8c 8/18/04	
G-4b 6/30/04	G-8d 12/15/04	
H-1 ..... 1/10/02	H-4a 2/25/05	H-12 ..... 2/25/05
H-1a 4/14/00	H-4b 10/24/06	H-12a 2/25/05
H-1b 6/21/06	H-6 ..... 10/29/03	H-12b 2/25/05
H-1c 3/04/05	H-7 ..... 8/10/98	H-13 ..... 2/25/05
H-1d 6/21/06	H-8 ..... 9/18/98	H-13a 2/25/05
H-1e 6/21/06	H-9 ..... 4/18/97	H-14 ..... 2/09/05
H-4 ..... 8/18/04	H-10 ..... 5/29/98	
I-1..... 7/18/97	I-6..... 7/17/03	I-11 ..... 9/11/03
I-2..... 4/23/99	I-7..... 7/17/03	I-12..... 7/17/03
I-3..... 8/20/99	I-8..... 7/17/03	I-13..... 7/17/03
I-4..... 7/17/03	I-9..... 7/17/03	I-14..... 7/17/03
I-5..... 7/17/03	I-10..... 7/17/03	I-15..... 1/23/07
J-1b..... 10/08/99	J-6g..... 12/12/02	J-11b 9/02/05
J-1c..... 4/24/98	J-6h..... 4/24/98	J-11c..... 6/21/06

J-1d 1/11/06	J-7a 9/12/01	J-12 ..... 11/08/05
J-1e 1/11/06	J-7c 6/19/98	J-15a 10/04/05
J-1f 6/23/00	J-7d 4/24/98	J-15b 10/04/05
J-3 ..... 8/01/97	J-8a 5/20/04	J-16a 3/04/05
J-3b 3/04/05	J-8b 5/20/04	J-16b 9/02/05
J-3c 6/24/02	J-8c 5/20/04	J-18 ..... 9/02/05
J-3d 11/05/03	J-8d 5/20/04	J-19 ..... 9/02/05
J-5 ..... 8/01/97	J-9a 4/24/98	J-20 ..... 9/02/05
J-6c 4/24/98	J-10 ..... 7/18/97	
J-6f 4/24/98	J-11a 9/02/05	
K-10.20-00 ..... 2/15/07	K-26.40-00 ..... 2/15/07	K-40.60-00 ..... 2/15/07
K-10.40-00 ..... 2/15/07	K-30.20-00 ..... 2/15/07	K-40.80-00 ..... 2/15/07
K-20.20-00 ..... 2/15/07	K-30.40-00 ..... 2/15/07	K-55.20-00 ..... 2/15/07
K-20.40-00 ..... 2/15/07	K-32.20-00 ..... 2/15/07	K-60.20-00 ..... 2/15/07
K-20.60-00 ..... 2/15/07	K-32.40-00 ..... 2/15/07	K-60.40-00 ..... 2/15/07
K-22.20-00 ..... 2/15/07	K-32.60-00 ..... 2/15/07	K-70.20-00 ..... 2/15/07
K-24.20-00 ..... 2/15/07	K-32.80-00 ..... 2/15/07	K-80.10-00 ..... 2/21/07
K-24.40-00 ..... 2/15/07	K-34.20-00 ..... 2/15/07	K-80.20-00 ... 12/20/06
K-24.60-00 ..... 2/15/07	K-36.20-00 ..... 2/15/07	K-80.30-00 ..... 2/21/07
K-24.80-00 ..... 2/15/07	K-40.20-00 ..... 2/15/07	K-80.35-00 ..... 2/21/07
K-26.20-00 ..... 2/15/07	K-40.40-00 ..... 2/15/07	K-80.37-00 ..... 2/21/07
L-10.10-00 ..... 2/21/07	L-40.10-00 ..... 2/21/07	L-70.10-00 ..... 1/30/07
L-20.10-00 ..... 2/07/07	L-40.15-00 ..... 2/21/07	L-70.20-00 ..... 1/30/07
L-30.10-00 ..... 2/07/07	L-40.20-00 ..... 2/21/07	
M-1.20-01 ..... 1/30/07	M-3.30-01 ..... 1/30/07	M-20.10-01 ..... 1/30/07
M-1.40-01 ..... 1/30/07	M-3.40-01 ..... 1/30/07	M-20.20-01 ..... 1/30/07
M-1.60-01 ..... 1/30/07	M-3.50-01 ..... 1/30/07	M-20.30-01 ..... 1/30/07
M-1.80-01 ..... 1/30/07	M-5.10-01 ..... 1/30/07	M-20.40-01 ..... 1/30/07
M-2.20-01 ..... 1/30/07	M-7.50-01 ..... 1/30/07	M-20.50-01 ..... 1/30/07
M-2.40-01 ..... 1/30/07	M-9.50-01 ..... 1/30/07	M-24.20-01 ..... 5/31/06
M-2.60-01 ..... 1/30/07	M-11.10-01 ..... 1/30/07	M-24.40-01 ..... 5/31/06
M-3.10-01 ..... 1/30/07	M-15.10-01 ..... 2/06/07	M-24.60-02 ..... 2/06/07
M-3.20-01 ..... 1/30/07	M-17.10-01 ..... 1/30/07	

APPENDIX A

Log of
Test Borings

Filename: J:\211\20710-011\21-1-20710-011 Fig 1.dwg Date: 05-25-2007 Login: LR



LEGEND

- GP-201 ⊙ Geoprobe Performed for this Study (May 2007)
- CB-112 ⊡ Sonic Core Boring Performed For This Study (2006)
- EB-10A ◍ Boring Performed For Previous Studies (2001 - 2005)
- GP-13 ● Geoprobe Performed For Previous Studies (2006)

◍ ⊡ ⊙ Explorations Shown in Blue Have Groundwater Monitoring Devices (Wells or Vibrating Wire Piezometers)

Superscripts: W Monitoring Well Installed; * Shear Wave Velocity Measurements Obtained

0 40 80
Scale in Feet

NOTE

This figure was adapted from file, *BENT_93_94_ONLY_V8.dgn*, received 5-22-07.

Alaskan Way Viaduct and Seawall Project
Bents 93 & 94 Emergency Repair
Seattle, Washington

VICINITY MAP

May 2007 21-1-20710-011

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 1

FIG. 1

Shannon & Wilson, Inc. (S&W), uses a soil classification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following page. Soil descriptions are based on visual-manual procedures (ASTM D 2488-93) unless otherwise noted.

S&W CLASSIFICATION OF SOIL CONSTITUENTS

- MAJOR constituents compose more than 50 percent, by weight, of the soil. Major consituents are capitalized (i.e., SAND).
- Minor constituents compose 12 to 50 percent of the soil and precede the major constituents (i.e., silty SAND). Minor constituents preceded by "slightly" compose 5 to 12 percent of the soil (i.e., slightly silty SAND).
- Trace constituents compose 0 to 5 percent of the soil (i.e., slightly silty SAND, trace of gravel).

MOISTURE CONTENT DEFINITIONS

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, from below water table

ABBREVIATIONS

ATD	At Time of Drilling
Elev.	Elevation
ft	feet
FeO	Iron Oxide
MgO	Magnesium Oxide
HSA	Hollow Stem Auger
ID	Inside Diameter
in	inches
lbs	pounds
Mon.	Monument cover
N	Blows for last two 6-inch increments
NA	Not applicable or not available
NP	Non plastic
OD	Outside diameter
OVA	Organic vapor analyzer
PID	Photo-ionization detector
ppm	parts per million
PVC	Polyvinyl Chloride
SS	Split spoon sampler
SPT	Standard penetration test
USC	Unified soil classification
WLI	Water level indicator

GRAIN SIZE DEFINITION

DESCRIPTION	SIEVE NUMBER AND/OR SIZE
FINES	< #200 (0.08 mm)
SAND*	
- Fine	#200 to #40 (0.08 to 0.4 mm)
- Medium	#40 to #10 (0.4 to 2 mm)
- Coarse	#10 to #4 (2 to 5 mm)
GRAVEL*	
- Fine	#4 to 3/4 inch (5 to 19 mm)
- Coarse	3/4 to 3 inches (19 to 76 mm)
COBBLES	3 to 12 inches (76 to 305 mm)
BOULDERS	> 12 inches (305 mm)

* Unless otherwise noted, sand and gravel, when present, range from fine to coarse in grain size.

RELATIVE DENSITY / CONSISTENCY

COARSE-GRAINED SOILS		FINE-GRAINED SOILS	
N, SPT, BLOWS/FT.	RELATIVE DENSITY	N, SPT, BLOWS/FT.	RELATIVE CONSISTENCY
0 - 4	Very loose	Under 2	Very soft
4 - 10	Loose	2 - 4	Soft
10 - 30	Medium dense	4 - 8	Medium stiff
30 - 50	Dense	8 - 15	Stiff
Over 50	Very dense	15 - 30	Very stiff
		Over 30	Hard

WELL AND OTHER SYMBOLS

Bent. Cement Grout	Surface Cement Seal
Bentonite Grout	Asphalt or Cap
Bentonite Chips	Slough
Silica Sand	Bedrock
PVC Screen	
Vibrating Wire	

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Bents 93 & 94 Emergency Repair
Seattle, Washington

SOIL CLASSIFICATION AND LOG KEY

May 2007 21-1-20710-011

SHANNON & WILSON, INC.
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FIG. 2
Sheet 1 of 2

BORING_CLASS1_21-20447.GPJ SWNEW.GDT 6/22/07

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)
(From ASTM D 2487-98 & 2488-93)

MAJOR DIVISIONS			GROUP/GRAPHIC SYMBOL		TYPICAL DESCRIPTION
COARSE-GRAINED SOILS *(more than 50% retained on No. 200 sieve)*	Gravels *(more than 50% of coarse fraction retained on No. 4 sieve)*	Clean Gravels *(less than 5% fines)*	GW		Well-graded gravels, gravels, gravel/sand mixtures, little or no fines.
			GP		Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines *(more than 12% fines)*	GM		Silty gravels, gravel-sand-silt mixtures
			GC		Clayey gravels, gravel-sand-clay mixtures
	Sands *(50% or more of coarse fraction passes the No. 4 sieve)*	Clean Sands *(less than 5% fines)*	SW		Well-graded sands, gravelly sands, little or no fines
			SP		Poorly graded sand, gravelly sands, little or no fines
		Sands with Fines *(more than 12% fines)*	SM		Silty sands, sand-silt mixtures
			SC		Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS *(50% or more passes the No. 200 sieve)*	Silts and Clays *(liquid limit less than 50)*	Inorganic	ML		Inorganic silts of low to medium plasticity, rock flour, sandy silts, gravelly silts, or clayey silts with slight plasticity
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		Organic	OL		Organic silts and organic silty clays of low plasticity
	Silts and Clays *(liquid limit 50 or more)*	Inorganic	MH		Inorganic silts, micaceous or diatomaceous fine sands or silty soils, elastic silt
			CH		Inorganic clays or medium to high plasticity, sandy fat clay, or gravelly fat clay
		Organic	OH		Organic clays of medium to high plasticity, organic silts
HIGHLY-ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor		PT		Peat, humus, swamp soils with high organic content (see ASTM D 4427)

NOTE: No. 4 size = 5 mm; No. 200 size = 0.075 mm

NOTES

1. Dual symbols *(symbols separated by a hyphen, i.e., SP-SM, slightly silty fine SAND)* are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the CL-ML area of the plasticity chart.

2. Borderline symbols *(symbols separated by a slash, i.e., CL/ML, silty CLAY/clayey SILT; GW/SW, sandy GRAVEL/gravelly SAND)* indicate that the soil may fall into one of two possible basic groups.

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Bents 93 & 94 Emergency Repair
Seattle, Washington

SOIL CLASSIFICATION AND LOG KEY

May 2007 | 21-1-20710-011

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FIG. 2
Sheet 2 of 2

BORING_CLASS2_21-20447.GPJ_SWNEW.GDT_5/22/07

LOG OF GEOPROBE

Date Started: 5/11/07	Location: NE of Bent 93W	Ground Elevation: Approx. 16.0 feet
Date Completed: 5/11/07		Typical Run Length: 5 feet
Total Depth (ft): 15.0	Drilling Company: Boart Longyear	Hole Diameter: 2.25 inches

Depth (ft)	Probe Run	Soil Description (Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.)	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	1	ASPHALT.	0.5					
		Brown, silty, sandy, fine GRAVEL; moist; crushed; (Hf) GM.	1.4					
		Brown, slightly silty, gravelly, fine to medium SAND; moist; (Hf) SP-SM.	1.8		0			
		Brown and black, silty, gravelly, fine to medium SAND; moist; scattered charcoal, coal, clinker, and silt chunks; (Hf) SM.	2.8					
		Brown, slightly gravelly, slightly silty, fine to medium SAND; moist; (Hf) SP-SM.	3.4					
5	2	Brown, slightly sandy, slightly gravelly, clayey SILT; moist; scattered organic pockets and iron staining; (Hf) ML.	4.5					5
		Brown, slightly gravelly, silty, fine to medium SAND; moist; iron-stained; (Hf) SM.	5.7				5.5' - GP201-S2-5.5 (EN):	
		Brown-gray, slightly clayey, slightly gravelly, sandy SILT; moist; scattered organic pockets; (Hf) ML.	7.4		0		6.5' - S-2A (GE):	
		wet below about 6.1 feet						
		Gray-brown, gravelly, silty, fine SAND; moist; (Hf) SM.	9.0					
10		Gray-brown, slightly clayey, sandy SILT; moist; 30 degree bedding; (Hf) ML.	10.2					10
	3	Brown and black, silty, gravelly, fine to medium SAND; moist; scattered brick and coal fragments; (Hf) SM.	10.6					
		Gray-brown, slightly sandy, clayey SILT; moist; 20 degree laminations; (Hf) ML.	11.0					
		Gray-brown, slightly clayey, silty, fine SAND; moist to wet; iron-stained; (Hf) SM.	11.7		0		12.0' - S-3 (GE):	
		Gray, silty CLAY; moist; (Hf) CL.	11.9			▽ During Drilling		
		Gray, sandy SILT; wet; (Hf) ML.						
15		BOTTOM OF BORING COMPLETED 5/11/2007	15.0				15.0' - GP201-GW (EN-Groundwater):	15

Typ: LKD Rev: PVH Log: PVH GEOPROBE AWV 21-20447.GPJ 21-20447.GPJ 5/22/07

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; SG = soil gas sample; AR = archeological sample.

LEGEND

3 — Run No.
2" Plastic Tube - No Soil Recovery
2" Plastic Tube with Soil Recovery
▽ Estimated Water Level

Alaskan Way Viaduct and Seawall Project
Bents 93 & 94 Emergency Repair
Seattle, Washington

LOG OF GEOPROBE GP-201

May 2007 — 21-1-20710-011

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FIG. 3

REV 2

LOG OF GEOPROBE

Date Started: 5/11/07	Location: SE of Bent 93W	Ground Elevation: Approx. 16.0 feet
Date Completed: 5/11/07		Typical Run Length: 5 feet
Total Depth (ft): 15.0	Drilling Company: Boart Longyear	Hole Diameter: 3.25 inches

Depth (ft)	Probe Run	Soil Description (Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.)	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	1	ASPHALT.	0.2					
		Brown, slightly silty to silty, sandy, fine GRAVEL; moist; crushed; (Hf) GP-GM.	1.2					
		Brown to gray, slightly clayey, gravelly, sandy SILT; moist; scattered charcoal; (Hf) ML.	1.6		0			
		Brown, gravelly, silty, fine to medium SAND; moist; scattered charcoal and clinker; (Hf) SM.	1.9					
		Brown, slightly silty, sandy, fine GRAVEL; moist; scattered glass; (Hf) GP-GM.	2.5					
5	2	Black, silty, gravelly, fine to coarse SAND; moist; scattered clinker and charcoal; (Hf) SM.	3.0					5
		Gray-brown, clayey SILT; moist; (Hf) ML.	4.0				5.5' - GP202-S2-5.5 (EN):	
		Dark brown, gravelly, silty, fine to coarse SAND; moist; scattered charcoal; (Hf) SM.	5.3					
		Brown to gray, silty SAND/sandy SILT; moist; oxidized; (Hf) SM/ML.	5.7		0			
		Interbedded dark brown, gravelly, fine to medium SAND and gray, silty CLAY; moist; scattered charcoal; (Hf) SP/CH.	6.1					
10	3	Gray, slightly clayey, sandy SILT; moist; wet below 6.5 feet; (Hf) ML.	7.0					
		Brown, slightly gravelly, silty, fine SAND; moist to wet; (Hf) SM.	8.5				9.5' - GP202-SG (SG):	
		Brown-gray, sandy, clayey SILT: moist to wet; (Hf) ML.	11.1					
		with 0.1-foot layer of dark brown gravel at 10.3 feet	11.6				10.5' - S-3 (GE):	10
		Brown to gray, slightly gravelly, silty, fine SAND; wet; iron-stained at top; (Hf) SM.	12.6		0			
		Wood; wet; unpreserved; horizontal; (Hf) (Wood).	14.0				14.0' - GP202-GW (EN-Groundwater):	
15		Silty SAND; wet; (Hf) SM - estimated from drilling action.	15.0					15
		Wood; wet; unpreserved; horizontal; (Hf) (Wood).						
		BOTTOM OF BORING COMPLETED 5/11/2007 Ecology Tag No. APS 524						

5/16/2007

Typ: LKD
Rev: PVH
Log: PVH
GEOPROBE AWV 21-20447.GPJ 21-20447.GPJ 5/22/07

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; SG = soil gas sample; AR = archeological sample.

LEGEND

3 — Run No.
2" Plastic Tube - No Soil Recovery
2" Plastic Tube with Soil Recovery
▽ Estimated Water Level

Alaskan Way Viaduct and Seawall Project
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Seattle, Washington

LOG OF GEOPROBE GP-202

May 2007 — 21-1-20710-011

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FIG. 4

REV 2

LOG OF GEOPROBE

Date Started 5/11/07	Location NE of Bent 94W	Ground Elevation:	Approx. 15.5 feet
Date Completed 5/11/07		Typical Run Length	5 feet
Total Depth (ft) 15.0	Drilling Company: Boart Longyear	Hole Diameter:	2.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
	1	ASPHALT.	0.4					
		Brown, silty, sandy, fine to GRAVEL; moist; crushed; (Hf) GM.	1.2		1.3			
		Black, silty, gravelly, fine to medium SAND; moist; scattered charcoal and clinker; (Hf) SM.	1.6					
		Dark brown, silty, sandy, fine to coarse GRAVEL; moist; scattered clinker and charcoal; (Hf) GM.						
		Black and gray, slightly gravelly, slightly sandy, silty CLAY; moist; abundant charcoal; scattered wood; (Hf) CL.	4.0					
5	2	Gray-brown, gravelly, silty, fine SAND; moist; minor oxidation; (Hf) SM.	5.1					5
		Black, silty, fine to coarse GRAVEL: wet; abundant coal; scattered clinker; (Hf) GM.	5.5		0		6.1' - GP203-S2-6.1 (EN):	
		Gray, slightly sandy, silty CLAY; moist to wet; scattered coal and clinker; and vertical WOOD piling; unpreserved and with bark; (Hf) CL/Wood.	5.9					
		WOOD piling; wet; vertical; unpreserved and with bark; coated with dark gray, sandy SILT; (Hf) Wood/ML.	7.5					
10	3				0	During Drilling		10
15		BOTTOM OF BORING COMPLETED 5/11/2007	15.0				15.0' - GP203-GW (EN-Groundwater):	15

Typ: LKD Rev: PVH Log: PVH GEOPROBE AWV_21-20447.GPJ 21-20447.GPJ 5/22/07

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; SG = soil gas sample; AR = archeological sample.

LEGEND

3 — 2" Plastic Tube - No Soil Recovery
2" Plastic Tube with Soil Recovery — Run No.
▽ Estimated Water Level

Alaskan Way Viaduct and Seawall Project
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Seattle, Washington

LOG OF GEOPROBE GP-203

May 2007 21-1-20710-011

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FIG. 5

REV 2

LOG OF GEOPROBE

Date Started 5/11/07	Location SE of Bent 94W	Ground Elevation: Approx. 15.0 feet	
Date Completed 5/11/07		Typical Run Length 5 feet	
Total Depth (ft) 15.0	Drilling Company: Boart Longyear	Hole Diameter: 3.25 inches	

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
	1	ASPHALT.	0.4					
		Brown, silty, sandy, fine to coarse GRAVEL; moist; crushed; (Hf) GM.	1.2		0			
		Black, silty, gravelly, fine to medium SAND; moist; abundant charcoal, coal, and clinker; scattered wood; (Hf) SM.	2.5					
		- with a layer of brown, silty, sandy, fine crushed GRAVEL at 2 to 2.3 feet						
		Brown, slightly gravelly, silty, fine SAND; moist; (Hf) SM.	4.0					
5	2	Brown to gray-brown, slightly gravelly, clayey, sandy SILT; moist; (Hf) ML			0		5.7' - GP204-S2-5.7 (EN):	5
		- with coal, charcoal, and clinker at 5.5 to 5.6 feet						
		- moist to wet at 5.6 to 6.1 feet	6.1			5/16/2007 Y4		
		Brown and black, slightly silty, gravelly, fine to medium SAND; moist to wet; scattered horizontal, unpreserved wood; (Hf) SP-SM.					8.5' - GP204-SG (SG):	
10	3	Black and brown, silty, gravelly, fine to medium SAND; moist to wet; abundant brick and charcoal; (possible Seattle Fire burn debris layer); (Hf) SM.	9.6		0		10.0' - S-3A (GE):	10
			10.5		0		10.5' - S-3B (GE):	
		Brown, silty, sandy, fine to coarse GRAVEL; wet; scattered clinker and possibly ceramic tile fragments at top; (Ship Ballast?); (Hf) GM/Wood.						
		- with layers of horizontal, unpreserved wood below 11.8 feet						
15		BOTTOM OF BORING COMPLETED 5/11/2007 Ecology Tag No. APS 525	15.0				15.0' - GP204-GW (EN-Groundwater):	15

Typ: LKD Rev: PVH Log: PVH GEOPROBE AWV 21-20447.GPJ 21-20447.GPJ 6/22/07

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; SG = soil gas sample; AR = archeological sample.

LEGEND

3 — 2" Plastic Tube - No Soil Recovery
2" Plastic Tube with Soil Recovery — Estimated Water Level
Run No.

Alaskan Way Viaduct and Seawall Project
Bents 93 & 94 Emergency Repair
Seattle, Washington

LOG OF GEOPROBE GP-204

May 2007 — 21-1-20710-011

SHANNON & WILSON, INC.
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FIG. 6

REV 2

LOG OF GEOPROBE

Date Started 5/10/07	Location NW of Bent 93E	Ground Elevation:	Approx. 15.0 feet
Date Completed 5/10/07		Typical Run Length	5 feet
Total Depth (ft) 15.0	Drilling Company: Boart Longyear	Hole Diameter:	2.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	1	ASPHALT over railroad tracks.	0.2					
		Brown, silty, fine to coarse gravelly, fine to coarse SAND; moist; with railroad ties; (Hf) SM.	1.3		0			
		Dark brown, gravelly, silty, fine to medium SAND; moist; scattered brick fragments and clinker; (Hf) SM.	2.2					
		Gray, slightly gravelly, sandy, clayey SILT and silty CLAY; moist; scattered glass and clinker; (Hf) ML/CL.	2.6					
5	2	Black to brown, slightly silty to silty, gravelly SAND; moist; scattered charcoal, brick fragments, and coal; (Hf) SM.			0			5
		- moist to wet below 5.6 feet					5.6' - S-2A (GE): 6.0' - GP205-S2-6 (EN): 7.0' - S-2B (GE):	
		Gray, slightly gravelly, slightly sandy, silty CLAY and clayey SILT; moist; (Hf) CL/ML	7.7					
10	3	- wet zones below 11.3 feet - with scattered wood fibers at 11.4 to 11.5 feet			0	▽ During Drilling	9.5' - GP205-SG (SG): 10.5' - S-3 (GE):	10
		Black, silty, gravelly SAND; wet; abundant clinker, coal, and cinders; (Hf) SM.	12.6				13.0' - GP205-GW (EN-Groundwater):	
15		BOTTOM OF BORING COMPLETED 5/10/2007	15.0					15

Typ: LKD Rev: PVH Log: PVH GEOPROBE AWV_21-20447.GPJ 21-20447.GPJ 5/22/07

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; SG = soil gas sample; AR = archeological sample.

LEGEND

3 — Run No.
2" Plastic Tube - No Soil Recovery
2" Plastic Tube with Soil Recovery
▽ Estimated Water Level

Alaskan Way Viaduct and Seawall Project
Bents 93 & 94 Emergency Repair
Seattle, Washington

LOG OF GEOPROBE GP-205

May 2007 21-1-20710-011

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FIG. 7

REV 2

LOG OF GEOPROBE

Date Started 5/10/07	Location SW of Bent 93E	Ground Elevation: Approx. 15.0 feet	
Date Completed 5/10/07		Typical Run Length 5 feet	
Total Depth (ft) 15.0	Drilling Company: Boart Longyear	Hole Diameter: 3.25 inches	

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
	1	ASPHALT over railroad tracks.	0.2		0			
		Dark gray, silty, sandy, GRAVEL; moist; crushed; with railroad ties; (Hf) GM.						
		Dark brown, silty, sandy, fine GRAVEL; moist; crushed; (Hf) GM.	2.5					
			3.2					
5	2	Dark brown, silty, gravelly, fine to medium SAND; moist; scattered brick fragments, charcoal, coal, clinker, and brown silt chunks; (Hf) SM.			0			5
			6.7		0		6.5' - GP206-S2-6.5 (EN):	
		Brown, slightly silty, slightly gravelly, fine to medium SAND; moist to wet; (Hf) SP-SM.	7.4					
		Gray, slightly clayey, silty, gravelly, fine to medium SAND; moist; (Hf) SM.				5/17/2007 ▽		
		Gray, slightly sandy, slightly gravelly, clayey SILT; moist to wet; iron-stained at 10.5 to 10.7 feet; (Hf); ML.	9.0					
10	3		10.7		0		10.7' - S-3A (GE):	10
		Black, silty, fine to medium SAND; wet; abundant wood fibers; scattered tree needles; (Hf) SM.	11.3				11.3' - S-3B (GE):	
		Gray, slightly gravelly, clayey SILT; moist to wet; iron-stained at 11.3 to 11.5 feet; (Hf) ML.	12.3					
		Gray, sandy SILT; wet; (Hf) ML.						
15		BOTTOM OF BORING COMPLETED 5/10/2007 Ecology Tag No. APS 522	15.0				15.0' - GP206-GW (EN-Groundwater):	15

Typ: LKD Rev: PVH Log: PVH GEOPROBE AWV 21-20447.GPJ 21-20447.GPJ 5/22/07

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; SG = soil gas sample; AR = archeological sample.

LEGEND

3 — Run No.

2" Plastic Tube - No Soil Recovery

2" Plastic Tube with Soil Recovery ▽ Estimated Water Level

Alaskan Way Viaduct and Seawall Project
Bents 93 & 94 Emergency Repair
Seattle, Washington

LOG OF GEOPROBE GP-206

May 2007 21-1-20710-011

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 8

REV 2

LOG OF GEOPROBE

Date Started 5/10/07	Location NW of Bent 94E	Ground Elevation:	Approx. 14.5 feet
Date Completed 5/10/07		Typical Run Length	5 feet
Total Depth (ft) 15.0	Drilling Company: Boart Longyear	Hole Diameter:	2.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
	1	ASPHALT immediately east of railroad tracks.	0.2		0			
		Black, silty, sandy, fine GRAVEL: moist; crushed; (Hf) GM.	2.8					
		Dark brown, silty, sandy, fine GRAVEL; moist; scattered brick dust; (Hf) GM.	3.6		0			
5	2	Dark brown and black, silty, gravelly, fine to medium SAND; moist; scattered coal, wood, organics, and charcoal; (Hf) SM.			0		5.0' - S-2 (GE):	5
		- moist to wet below 5 feet					6.0' - GP207-S2-6 (EN):	
		Brown, slightly sandy, silty CLAY; wet; iron-stained; (Hf) CL.	6.8					
		Black, silty, fine to coarse SAND; wet; scattered charcoal; (Hf) SM.	8.5			▽ During Drilling	9.0' - GP207-SG (SG):	
10	3	Olive-gray, silty, fine to medium SAND; wet; (Hf) SM.	10.3		0		10.0' - S-3 (GE):	10
15		BOTTOM OF BORING COMPLETED 5/10/2007	15.0				15.0' - GP207-GW (EN-Groundwater):	15

Typ: LKD Rev: PVH Log: PVH GEOPROBE AWV_21-20447.GPJ, 21-20447.GPJ, 5/22/07

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; SG = soil gas sample; AR = archeological sample.

LEGEND

3 — Run No.

2" Plastic Tube - No Soil Recovery

2" Plastic Tube with Soil Recovery

▽ Estimated Water Level

Alaskan Way Viaduct and Seawall Project
Bents 93 & 94 Emergency Repair
Seattle, Washington

LOG OF GEOPROBE GP-207

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FIG. 9

REV 2

SONIC LOG 21-09490.GPJ W8100.GPJ 4/27/07

GENERAL SOIL DESCRIPTION

Coordinates: N: 223,275 E: 1,269,558

Surface Elevation: 16.0 Ft. (NAVD88)

ASPHALT.

Gray, brown-gray and orange-brown, silty, gravelly SAND to silty, sandy GRAVEL; moist to wet; locally a gravelly, sandy SILT, trace of clay; abundant wood and brick fragments, scattered to abundant cinders and organics; (Hf) SM/GM/ML.

DETAILED SOIL DESCRIPTION

Depth, Ft	Symbol	Description
0.6		ASPHALT.
		Orange-brown, silty, gravelly SAND to silty, sandy GRAVEL; moist; massive, scattered brick fragments and wood debris; SM/GM.
12.0		Brown-gray, intermixed gravelly, silty SAND and gravelly, sandy SILT, trace of clay; moist to wet; abundant wood debris, scattered cinders; SM/ML.
22.0		Gray, silty, gravelly SAND; moist; massive, scattered organic debris; SM.

Discontinuities: Angle (deg), Symbol

Depth Scale, Ft: 5, 10, 15, 20, 25

Samples: R-1, R-2, R-3, R-4

Lab Testing

Ground Water and Well Details: 11/18/2006

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 the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

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Alaskan Way Viaduct
Central Section

LOG OF BORING CB-111

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FIG. B-11
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FIG. B-11
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SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

SONIC_LOG 21-08490.GPJ W6100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,275 E: 1,269,558 Surface Elevation: 16.0 Ft. (NAVD88)											
	Green-gray, clayey SILT, trace of sand; wet; massive, scattered shell fragments; (He) ML.	30.0			30.0							
35	Brown-gray, silty, sandy GRAVEL to silty, gravelly SAND; wet; massive, scattered to abundant shell fragments, locally trace of clay; (Hb) GM/SM.	33.0			33.0				35	R-5		
40									40	R-6		
	Orange-brown, slightly silty, gravelly SAND to slightly silty, sandy GRAVEL; wet; massive, heavy iron-oxide staining at top, locally trace of clay; (Qpgo) SP-SM/GP-GM.	42.0			42.0							
45				- dark brown from 46.0 to 46.5 feet - gray-brown from 46.5 to 47.5 feet					45	R-7		
	Yellow-brown, slightly silty, sandy GRAVEL to silty, gravelly SAND; wet; massive, scattered cobbles, faint iron-oxide staining, weathered appearance, scattered clayey silt pockets, scattered seams of silty sand; (Qpgo) GP-GM//SM.	47.5			47.5							
50				- scattered brown, clayey SILT pockets below 52.0 feet					50			
				- interbed of silty fine SAND at 53.0 feet								
55									55	R-8		

NOTES

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FIG. B-11
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FIG. B-11
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SONIC_LOG 21-09490.GPJ WB100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,275 E: 1,269,558 Surface Elevation: 16.0 Ft. (NAVD88)											
	Gray and brown-gray, slightly gravelly to gravelly, silty, clayey SAND; moist to dry; diamict; scattered brown, organic-rich seams and pockets; scattered to abundant dry silt partings; layer of gravelly clayey, sandy silt at 66.0 feet; layer of clayey, silty sand at 70.0 feet; (Qpgm) SM/SC/ML.	60.5		Brown-gray, slightly gravelly to gravelly, silty, clayey SAND; moist to dry; diamict; abundant brown, organic-rich seams above 63.0 feet; SC.	60.5							
65				Gray, gravelly, clayey, sandy SILT; moist to dry; diamict, scattered faint bedding, scattered dry silt partings; ML/SM.	66.0				65	R-9		
70				Gray, clayey, silty SAND; moist; massive; scattered red-brown, organic-rich seams and pockets; scattered wood fragments; SM. - seam of silty fine SAND at 70.8 feet - seam of silty fine SAND at 72.5 feet	70.0				70			
75	Gray, silty CLAY, trace of sand and gravel; moist; scattered bedding, scattered silt and sand seams, scattered shell fragments and slickensides, scattered organic debris; (Qpgl) CH.	75.0		- abundant dry silt partings at 74.0 feet and local high-plasticity clay seams at 74.9 feet	75.0				75	R-10		
		77.0			77.0							
80	Gray, slightly gravelly, sandy, silty CLAY; moist; diamict, scattered to abundant slickensides and sheared zones, scattered to abundant silt partings, scattered seams of gravelly, silty sand; (Qpgm) CH.								80			
85									85	R-11		

NOTES

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3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

FIG. B-11
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SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

SONIC LOG 21-09490.GPJ WB100.GPJ 4/27/07

GENERAL SOIL DESCRIPTION

Coordinates: N: 223,275 E: 1,269,558

Surface Elevation: 16.0 Ft. (NAVD88)

Gray, slightly gravelly, sandy, silty CLAY; (Qpgm) CH (cont.)

Gray, silty CLAY; moist; massive; scattered to abundant slickensides and sheared zones; scattered sand seams, pockets, and lenses; scattered shell fragments, locally trace of sand; (Qpgl) CH.

104.0

DETAILED SOIL DESCRIPTION

- abundant slickensides and dicad texture from 104.0 to 110.0 feet

104.0

Depth Scale, Ft: 95, 100, 105, 110, 115

Depth, Ft / Symbol

Discontinuities: Angle (deg) / Symbol

Samples: R-12, R-13, R-14, R-15

Lab Testing

Ground Water and Well Details

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 the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
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6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

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SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,275 E: 1,269,558 Surface Elevation: 16.0 Ft. (NAVD88) Gray, silty CLAY; (Qpgl) CH (cont.)			- abundant shearing from 135.0 to 147.0 feet					125 130 135 140 145	R-16 R-17		

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
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3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

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SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,275 E: 1,269,558 Surface Elevation: 16.0 Ft. (NAVD88)											
	Gray, silty CLAY; (Qpgl) CH (cont.)											
155				- abundant sand seams and scattered organic debris from 154.0 160.0 feet					155			
160				- abundant shell fragments and scattered brown, organic-rich fragments below 160.0 feet					160	R-18		
165				- interbed of gray, slightly clayey, slightly fine gravelly, silty sand; moist to dry; massive, abundant shell fragments at 164.0 feet					165			
170	BOTTOM OF BORING COMPLETED 10/30/2006	170.0		BOTTOM OF BORING COMPLETED 10/30/2006	170.0				170			
175									175			

NOTES

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3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
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6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

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SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,292 E: 1,269,593 Surface Elevation: 14.9 FL (NAVD88)											
	ASPHALT.			ASPHALT.	1.0							
	Dark brown, silty, sandy GRAVEL and railroad tie wood; moist; creosote odor; (Hf) GM.	1.0		WOOD.	1.8							
	Gray, brown and black, silty, gravelly SAND to silty, sandy GRAVEL; moist; massive, abundant cinders, scattered wood and brick fragments; (Hf) SM/GM.	2.5		- 3-inch brick fragment at 4.8 feet	2.5				5	R-1		
5										R-2		
	Gray, sandy, silty CLAY; moist to wet; massive; scattered, irregular iron-oxide staining; abundant, hard clay clasts in softer clayey matrix; abundant wood fragments and layers, layer of silt at 16.0 feet, layer of silty, gravelly sand at 16.6 feet; (Hf) CL/ML/SM.	8.0		Gray, sandy, silty CLAY; moist; massive; scattered, irregular iron-oxide staining; abundant, hard clay clasts in softer clayey matrix; CL.	8.0							
10				WOOD; relatively fresh with horizontal fibers.	10.0				10			
				Gray, slightly sandy, silty CLAY; moist to wet; abundant, hard clay clasts; CL/CH.	10.4							
				WOOD; relatively fresh with horizontal fibers.	11.6							
				Gray, silty CLAY; moist; with vertical shredded wood, dark gray seam at 13.2 feet; CL.	12.5							
15				WOOD; moist; fresh with diagonal and horizontal fibers.	14.2				15	R-3		
				Gray, silty CLAY; moist; abundant wood debris; CL.	15.5							
				Dark brown SILT; moist to wet; abundant wood debris and plant stems; ML.	16.0							
				Dark gray, silty, gravelly SAND; moist to wet; massive, scattered barnacles, cinders, and coal fragments; sulfur odor; SM.	16.6 17.0							
				-Core loss- no sample between 17.0 and 20.0 feet								
20	Dark gray and brown, silty, sandy GRAVEL to silty, gravelly SAND; moist; massive, scattered brick fragments, scattered wood debris, scattered charcoal	20.0		- block of wood with diagonal fibers and creosote odor at 21.5 feet	20.0				20			

During Drilling

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
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3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

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Alaskan Way Viaduct
Central Section

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FIG. B-12
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FIG. B-12
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SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,292 E: 1,269,593 Surface Elevation: 14.9 Ft. (NAVD88)											
	fragments, mixed angular and rounded gravel, clayey below 22.0 feet; (Hf) GM/SM.			Gray and dark gray, silty, sandy, clayey GRAVEL; moist; massive, scattered wood fragments; GM.								
		24.0			24.0							
25	Gray, slightly gravelly to gravelly, silty, sandy, CLAY; moist to wet; jumbled texture, scattered wood debris and hard clay clasts, layer of wood at 26.5 feet, layer of slightly silty sand at 27.3 feet; (Hf) CL/SP-SM.			Gray, slightly gravelly to gravelly, silty, sandy CLAY; moist; jumbled texture, scattered wood and hard clay clasts; CL.					25	R-4		
				WOOD; relatively fresh with diagonal fibers.	26.5							
				Dark gray, slightly silty, fine to coarse SAND; wet; massive, abundant coal fragments; (Hf) SP-SM.	27.3 28.0							
				Gray, silty CLAY, trace of sand and gravel; moist; massive, jumbled texture, scattered wood and hard clay clasts; CL.								
30	Gray, slightly sandy, clayey SILT, trace of gravel; wet; massive, abundant shell fragments, abundant wood at top, sand seam at 32.0 feet; (He) ML.	30.0		- layer of light brown sawdust at 29.5 feet	30.0				30			
		32.5		- dark gray seam of silty SAND above dark gray wood at 32.0 feet	32.5							
35	Brown-gray, slightly silty to silty, sandy GRAVEL to silty, gravelly SAND; wet; massive; (Hb) GW-GM/GM/SM.								35	R-5		
40	Gray, clean to slightly silty, fine SAND; wet; massive; (Qpgo) SP-SM/SP.	40.5			40.5				40			
		43.5			43.5							

NOTES

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3. Groundwater level, if indicated above, is for the date specified and may vary.
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FIG. B-12
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SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07

GENERAL SOIL DESCRIPTION

Coordinates: N: 223,292 E: 1,269,593

Surface Elevation: 14.9 Ft. (NAVD88)

Gray, silty, gravelly SAND; wet; massive, locally only trace of gravel, trace of clay at top, layers of silty, sandy gravel at 49.0 and 59.5 feet; (Qpgo) SM/GM.

BOTTOM OF BORING
COMPLETED 10/19/2006

DETAILED SOIL DESCRIPTION

- clean fine sand seam at 48.0 feet

49.0 — Gray, silty, sandy, GRAVEL; wet; massive; GM. — 49.5

- yellow-gray color from 54.0 to 55.5 feet

55.5 — Gray, slightly silty, slightly gravelly to gravelly SAND; wet; massive; SW-SM. — 56.5

Gray, silty SAND, trace of gravel; wet; massive; SM.

58.5 — Yellow-gray, slightly silty to silty SAND; wet; massive; SP-SM/SM. — 59.5

Gray, silty, sandy GRAVEL, trace of clay; wet; massive; GM. — 60.0

BOTTOM OF BORING
COMPLETED 10/19/2006

Discontinuities: Angle (deg), Symbol

Samples: R-6, R-7

Lab Testing

Ground Water and Well Details

NOTES

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3. Groundwater level, if indicated above, is for the date specified and may vary.
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5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

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SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

SONIC_LOG 21-08490.GPJ W8100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,220 E: 1,269,590 Surface Elevation: 15.4 Ft. (NAVD88)											
	ASPHALT.	0.6		ASPHALT.	0.6							
	Gray and brown,slightly silty to silty, sandy GRAVEL to silty, gravelly SAND; moist; scattered concrete fragments; (Hf) GM/SM/SP-SM.											
5	Gray and brown, slightly gravelly, silty SAND; moist, becoming wet below 9.5 feet; massive; (Hf) SM.	5.0			5.0				5	R-1 R-2		
10	WOOD; intermixed lumber, timber, wood chips and saw dust; wet; jumbled texture, organic odor; (Hf).	11.0			11.0				10			
15									15	R-3		
20									20			
25									25	R-4		
30	Brown-gray, clayey SILT, trace of sand; wet; massive, scattered to abundant shell fragments; (He) ML.	30.0			30.0				30			
	Brown-gray, silty, sandy GRAVEL to silty, gravelly SAND, trace of clay; wet; massive, scattered to abundant shell	33.0			33.0							

NOTES

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3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
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Alaskan Way Viaduct and Seawall Project
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Central Section

LOG OF BORING CB-113

April 2007 21-1-20608-001

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. B-13
Sheet 1 of 2

FIG. B-13
Sheet 1 of 2

SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,220 E: 1,269,590 Surface Elevation: 15.4 Ft. (NAVD88)											
40	fragments; (Hb) GM/SM.								40	R-5		
	Gray to gray-brown, slightly silty to silty, slightly gravelly to gravelly SAND; wet; massive; (Qpgo) SM/SW-SM.	42.5			42.5					R-6		
45									45			
50									50			
55									55	R-7		
60	BOTTOM OF BORING COMPLETED 9/7/2006	60.0		BOTTOM OF BORING COMPLETED 9/7/2006	60.0				60			
65									65			

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 the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

Alaskan Way Viaduct and Seawall Project
Alaskan Way Viaduct
Central Section

LOG OF BORING CB-113

April 2007 21-1-20608-001

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. B-13
Sheet 2 of 2

FIG. B-13
Sheet 2 of 2

SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol
	Coordinates: N: 223,241 E: 1,269,625 Surface Elevation: 14.7 Ft (NAVD88)		
	ASPHALT.	0.5	
5	Gray, black, and brown, silty, slightly clayey to clayey, gravelly SAND and slightly clayey, silty, sandy GRAVEL; moist grading to wet below 18 feet; massive with locally jumbled texture, scattered to abundant charcoal fragments and cinders, scattered brick fragments, scattered clay rip-up clasts, scattered concrete fragments, scattered wood debris, gravel layer at 7.5 feet, clay layer at 16.0 feet, silt layer at 17.0 feet; (Hf) SM/GM.		
10			
15			
20			

DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol
ASPHALT.	0.5	
Brown, silty, sandy, GRAVEL; moist; massive, angular gravel, scattered brick fragments; GM.	1.0	
Gray, brown, and black, mixed silty, clayey, gravelly SAND and slightly clayey, silty, sandy GRAVEL; moist; jumbled texture with some coherent blocks showing remnant bedding, scattered to abundant charcoal fragments and cinders, scattered brick fragments; SM/GM.		
Core loss- no sample between 5.0 and 7.5 feet	5.0	
Black and dark gray, silty, sandy GRAVEL to silty, gravelly SAND; moist; massive, abundant charcoal fragments and cinders, scattered clay rip-up clasts; GM/SM.	7.5	
Core loss- no sample between 10.0 and 15.0 feet	10.0	
Dark gray, black, and brown, silty, gravelly SAND; moist; massive, abundant cinders at top, abundant clay rip-up clasts at top, wood with horizontal fibers at 15.6 feet; SM.	15.0 16.0	
Gray, slightly sandy, silty CLAY; moist to wet; abundant shredded wood and clay rip-up clasts at 16.5 feet; CL	17.0	
Dark brown, slightly clayey, gravelly, sandy, SILT; wet; jumbled texture, abundant burnt debris, brick fragments at 17.5 feet; ML	18.0	
Dark brown and black, slightly clayey, silty, gravelly SAND; wet; massive, jumbled texture, abundant shredded and planed wood, scattered to abundant charcoal fragments; SM.		
Core loss- no sample between 20.0 and 23.5 feet	20.0	

Discontinuities		Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
Angle (deg)	Symbol				
		5	R-1		
		10	R-2		
		15	R-3		During Drilling:
		20			

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 the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

Alaskan Way Viaduct and Seawall Project
Alaskan Way Viaduct
Central Section

LOG OF BORING CB-114

April 2007 21-1-20608-001

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. B-14
Sheet 1 of 3

FIG. B-14
Sheet 1 of 3

SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

Depth Scale, Ft	GENERAL SOIL DESCRIPTION	Depth, Ft	Symbol	DETAILED SOIL DESCRIPTION	Depth, Ft	Symbol	Discontinuities: Angle (deg)	Discontinuities: Symbol	Depth Scale, Ft	Samples	Lab Testing	Ground Water and Well Details
	Coordinates: N: 223,241 E: 1,269,625 Surface Elevation: 14.7 Ft. (NAVD88)											
25	Gray, brown and black, silty, gravelly SAND to silty, sandy GRAVEL; (Hf) SM/GM (cont.)			Dark brown, slightly clayey, gravelly SAND; wet; jumbled texture, scattered clay rip-up clasts, vertical wood with silty sand, scattered concrete fragments; SM.	23.5				25	R-4		
				WOOD; dark brown, vertically-oriented fibers (piling?), bark stringers (edge of piling?), silt and sand with wood.	25.0							
30				- abundant cinders, glass fragments (blue and clear), and sawdust at 28.5 feet					30			
	Brown-gray, clayey SILT, trace of fine sand; wet; massive, scattered shell fragments; (He) ML.	31.0			31.0							
	Gray, silty, sandy GRAVEL; wet; massive, trace of clay at top, abundant coarse shell fragments at top; layer of slightly silty, gravelly sand at 36.0 feet; (Hb) GM.	33.5			33.5							
35				Yellow-brown, slightly silty, gravelly SAND; wet; massive; SP-SM.	36.0 36.5				35	R-5		
	Gray, silty, gravelly SAND to silty, sandy GRAVEL; wet; massive, scattered beds of clean to slightly silty sand, scattered seams of coarse gravel; (Qpgo) SM/GM.	37.0			37.0							
40									40			

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 the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

Alaskan Way Viaduct and Seawall Project
Alaskan Way Viaduct
Central Section

LOG OF BORING CB-114

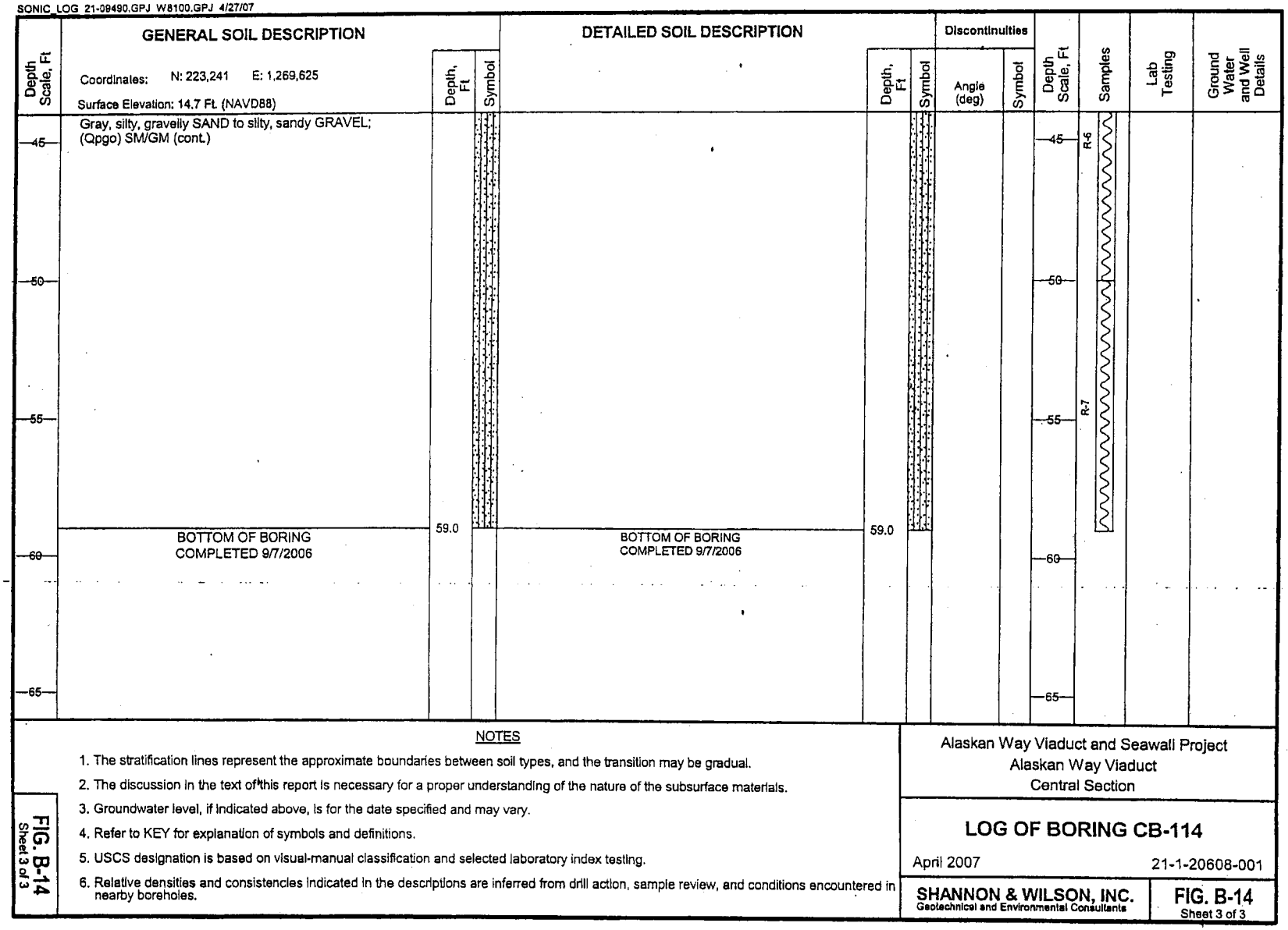
April 2007 21-1-20608-001

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. B-14
Sheet 2 of 3

FIG. B-14
Sheet 2 of 3

SONIC_LOG 21-09490.GPJ W8100.GPJ 4/27/07



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 the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.
6. Relative densities and consistencies indicated in the descriptions are inferred from drill action, sample review, and conditions encountered in nearby boreholes.

Alaskan Way Viaduct and Seawall Project
Alaskan Way Viaduct
Central Section

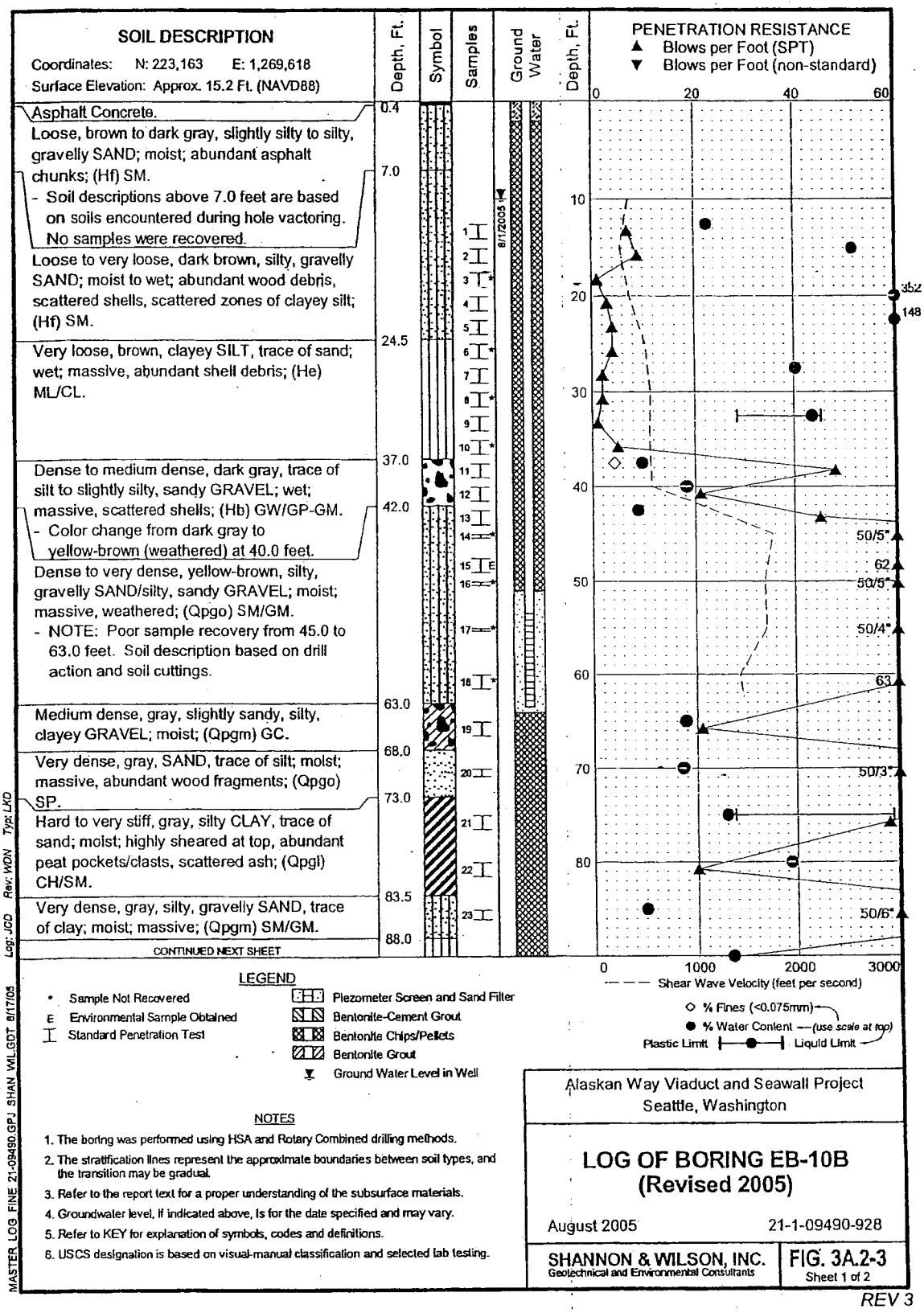
LOG OF BORING CB-114

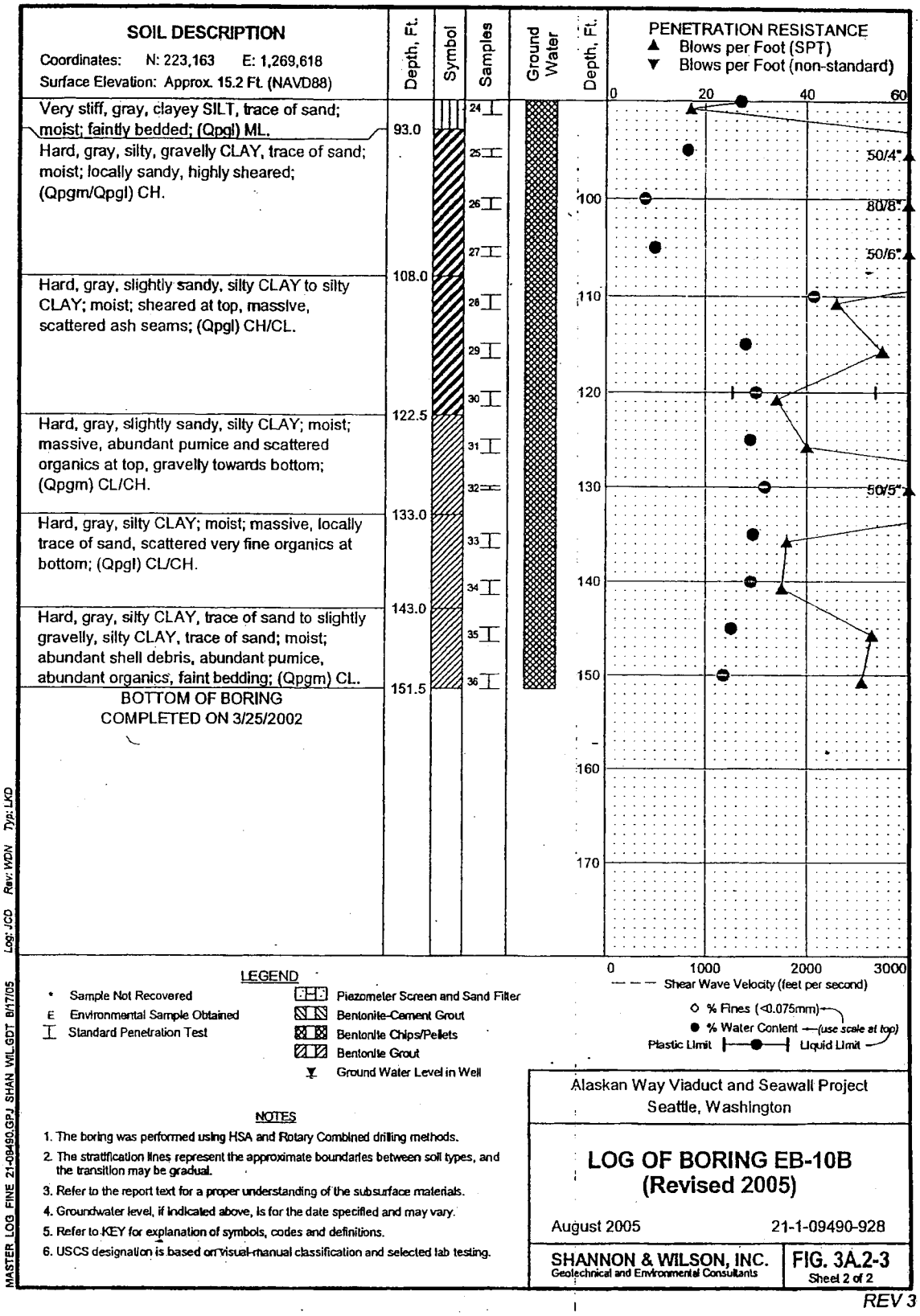
April 2007 21-1-20608-001

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. B-14
Sheet 3 of 3

FIG. B-14
Sheet 3 of 3


SOIL DESCRIPTION
Coordinates: N: 223,163 E: 1,269,618
Surface Elevation: Approx. 15.2 Ft. (NAVD88)
Depth, Ft.
Symbol
Samples
Ground Water
Depth, Ft.
PENETRATION RESISTANCE
Blows per Foot (SPT)
Blows per Foot (non-standard)
0 20 40 60
Asphalt Concrete.
0.4
Loose, brown to dark gray, slightly silty to silty, gravelly SAND; moist; abundant asphalt chunks; (Hf) SM.
7.0
- Soil descriptions above 7.0 feet are based on soils encountered during hole vactoring. No samples were recovered.
Loose to very loose, dark brown, silty, gravelly SAND; moist to wet; abundant wood debris, scattered shells, scattered zones of clayey silt; (Hf) SM.
24.5
Very loose, brown, clayey SILT, trace of sand; wet; massive, abundant shell debris; (He) ML/CL.
37.0
Dense to medium dense, dark gray, trace of silt to slightly silty, sandy GRAVEL; wet; massive, scattered shells; (Hb) GW/GP-GM.
42.0
- Color change from dark gray to yellow-brown (weathered) at 40.0 feet.
Dense to very dense, yellow-brown, silty, gravelly SAND/silty, sandy GRAVEL; moist; massive, weathered; (Qpgo) SM/GM.
- NOTE: Poor sample recovery from 45.0 to 63.0 feet. Soil description based on drill action and soil cuttings.
63.0
Medium dense, gray, slightly sandy, silty, clayey GRAVEL; moist; (Qpgm) GC.
68.0
Very dense, gray, SAND, trace of silt; moist; massive, abundant wood fragments; (Qpgo) SP.
73.0
Hard to very stiff, gray, silty CLAY, trace of sand; moist; highly sheared at top, abundant peat pockets/clasts, scattered ash; (Qpgl) CH/SM.
83.5
Very dense, gray, silty, gravelly SAND, trace of clay; moist; massive; (Qpgm) SM/GM.
88.0
CONTINUED NEXT SHEET
8/1/2005
352
148
50/5"
62
50/5"
50/4"
63
50/3"
50/6"
0 1000 2000 3000
Shear Wave Velocity (feet per second)
% Fines (<0.075mm)
% Water Content (use scale at top)
Plastic Limit
Liquid Limit
LEGEND
Sample Not Recovered
Environmental Sample Obtained
Standard Penetration Test
Piezometer Screen and Sand Filter
Bentonite-Cement Grout
Bentonite Chips/Pellets
Bentonite Grout
Ground Water Level in Well
NOTES
1. The boring was performed using HSA and Rotary Combined drilling methods.
2. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
3. Refer to the report text for a proper understanding of the subsurface materials.
4. Groundwater level, if indicated above, is for the date specified and may vary.
5. Refer to KEY for explanation of symbols, codes and definitions.
6. USCS designation is based on visual-manual classification and selected lab testing.
Alaskan Way Viaduct and Seawall Project
Seattle, Washington
LOG OF BORING EB-10B
(Revised 2005)
August 2005
21-1-09490-928
SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants
FIG. 3A.2-3
Sheet 1 of 2
REV 3
MASTER LOG FINE 21-09490.GPJ SHAN WILGDT 8/17/05 Log: JCD Rev: WDN Typ: LKD


SOIL DESCRIPTION
Coordinates: N: 223,163 E: 1,269,618
Surface Elevation: Approx. 15.2 Ft. (NAVD88)
Depth, Ft.
Symbol
Samples
Ground Water
Depth, Ft.
PENETRATION RESISTANCE
Blows per Foot (SPT)
Blows per Foot (non-standard)
Very stiff, gray, clayey SILT, trace of sand; moist; faintly bedded; (Qpgl) ML.
93.0
Hard, gray, silty, gravelly CLAY, trace of sand; moist; locally sandy, highly sheared; (Qpgm/Qpgl) CH.
108.0
Hard, gray, slightly sandy, silty CLAY to silty CLAY; moist; sheared at top, massive, scattered ash seams; (Qpgl) CH/CL.
122.5
Hard, gray, slightly sandy, silty CLAY; moist; massive, abundant pumice and scattered organics at top, gravelly towards bottom; (Qpgm) CL/CH.
133.0
Hard, gray, silty CLAY; moist; massive, locally trace of sand, scattered very fine organics at bottom; (Qpgl) CL/CH.
143.0
Hard, gray, silty CLAY, trace of sand to slightly gravelly, silty CLAY, trace of sand; moist; abundant shell debris, abundant pumice, abundant organics, faint bedding; (Qpgm) CL.
151.5
BOTTOM OF BORING
COMPLETED ON 3/25/2002
50/4"
80/8"
50/6"
50/5"
Shear Wave Velocity (feet per second)
% Fines (<0.075mm)
% Water Content
(use scale at top)
Plastic Limit
Liquid Limit
LEGEND
Sample Not Recovered
Environmental Sample Obtained
Standard Penetration Test
Piezometer Screen and Sand Filter
Bentonite-Cement Grout
Bentonite Chips/Pellets
Bentonite Grout
Ground Water Level in Well
NOTES
1. The boring was performed using HSA and Rotary Combined drilling methods.
2. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
3. Refer to the report text for a proper understanding of the subsurface materials.
4. Groundwater level, if indicated above, is for the date specified and may vary.
5. Refer to KEY for explanation of symbols, codes and definitions.
6. USCS designation is based on visual-manual classification and selected lab testing.
Alaskan Way Viaduct and Seawall Project
Seattle, Washington
LOG OF BORING EB-10B
(Revised 2005)
August 2005
21-1-09490-928
SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants
FIG. 3A.2-3
Sheet 2 of 2
REV 3
MASTER LOG FINE 21-09490.GPJ SHAN WIL.GDT 8/17/05 Log: JCD Rev: WDN Typ: LKD

Washington State Department of Transportation

LOG OF TEST BORING

Start Card R62160

Job No. XL-2060 SR 99 Elevation ~15' (m) HOLE No. H-1-03

Sheet 1 of 2

Project Alaskan Way Viaduct, Bent 94 East Driller Joe Judd Lic# 2454

Site Address Vic. Alaskan Way and Yesler Way Inspector Dan Reed

Start November 10, 2003 Completion November 11, 2003 Well ID# Equipment CME 55 w/ autohammer

Station Offset Casing HW 4.5/HQ 3.5 Method Wet Rotary

Northing Easting Latitude Longitude

County King Subsection NE 1/4 Of The NE 1/4 Section 6 Range 4 EWM Township 24N

Depth (ft)	Meters (m)	Profile	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	1			3 4 3 (7)		D-1		Silty SAND with gravel, loose, dark brown, wet. Length Recovered 1.0 ft, Length Retained 1.0 ft		
10	2 3			3 4 3 (7)		D-2		Silty SAND with gravel, angular gravel, loose, gray, wet, stratified. Traces of wood material. Color change at 9.5-10.5' to gray. Length Recovered 1.5 ft, Length Retained 1.5 ft	11/10/2003 11/11/2003	
15	4 5			3 5 8 (13)		D-3		Sandy ORGANIC SOIL with gravel, wood, medium stiff, dark brown, wet. End grain of wood retained in sampler from 14.0-19.0'. Length Recovered 1.2 ft, Length Retained 1.2 ft		
20	6			6 10		D-4		WOOD, light brown, wet. Length Recovered 0.3 ft, Length Retained 0.3 ft		

SOIL XL-2060 ALASKAN WAY AND YESLER WAY.GPJ SOIL.GDT 2/4/04,8:15:46 A2

Washington State Department of Transportation

LOG OF TEST BORING

Start Card R62160

Job No. XL-2060 SR 99 Elevation (m)

HOLE No. H-1-03

Sheet 2 of 2

Project Alaskan Way Viaduct, Bent 94 East

Driller Joe Judd Lic# 2454

Depth (ft)	Meters (m)	Profile	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
				8 (18)						
25	7			3 6 6 (12)	D-5			WOOD, light brown, wet. Length Recovered 0.2 ft, Length Retained 0.2 ft		
	8							End of test hole boring at 25.5 ft below ground elevation. Bore hole abandoned and moved 2 feet north (H-1A-03 in attempt to avoid apparent timber pile.		
30	9									
	10									
35	11									
	12									
40	13									
45										

SOIL XL-2060 ALASKAN WAY AND YESLER WAY.GPJ SOIL.GDT 2/4/04 8:15:47 A2

Washington State Department of Transportation

LOG OF TEST BORING

Start Card R62160

Job No. XL-2060 SR 99 Elevation (m)

HOLE No. H-1A-03

Sheet 1 of 4

Project Alaskan Way Viaduct, Bent 94 East

Driller Joe Judd Lic# 2454

Site Address Vic. Alaskan Way and Yesler Way

Inspector Dan Reed

Start November 11, 2003 Completion November 13, 2003 Well ID# AHP427

Equipment CME 55 w/ autohammer

Station Offset Casing HW-4.5/HQ-3.5

Method Wet Rotary

Northing Easting Latitude Longitude

County King Subsection NE 1/4 Of The NE 1/4 Section 6 Range 4 EWM Township 24N

Depth (ft)	Meters (m)	Profile	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
								Same soil and wood debris as H-1-03 (see boring log).		
									11/11/2003 11/13/2003	
5	1									
	2									
10	3									
	4									
15										
	5									
20	6		>>	10 60/3		D-4A		Sandy ORGANIC SOIL with gravel, subrounded gravel, very stiff, gray, wet.		

SOIL XL-2060 ALASKAN WAY AND YESLER WAY.GPJ SOIL.GDT 2/4/04,8:15:50 A2

Washington State Department of Transportation

LOG OF TEST BORING

Start Card R62160

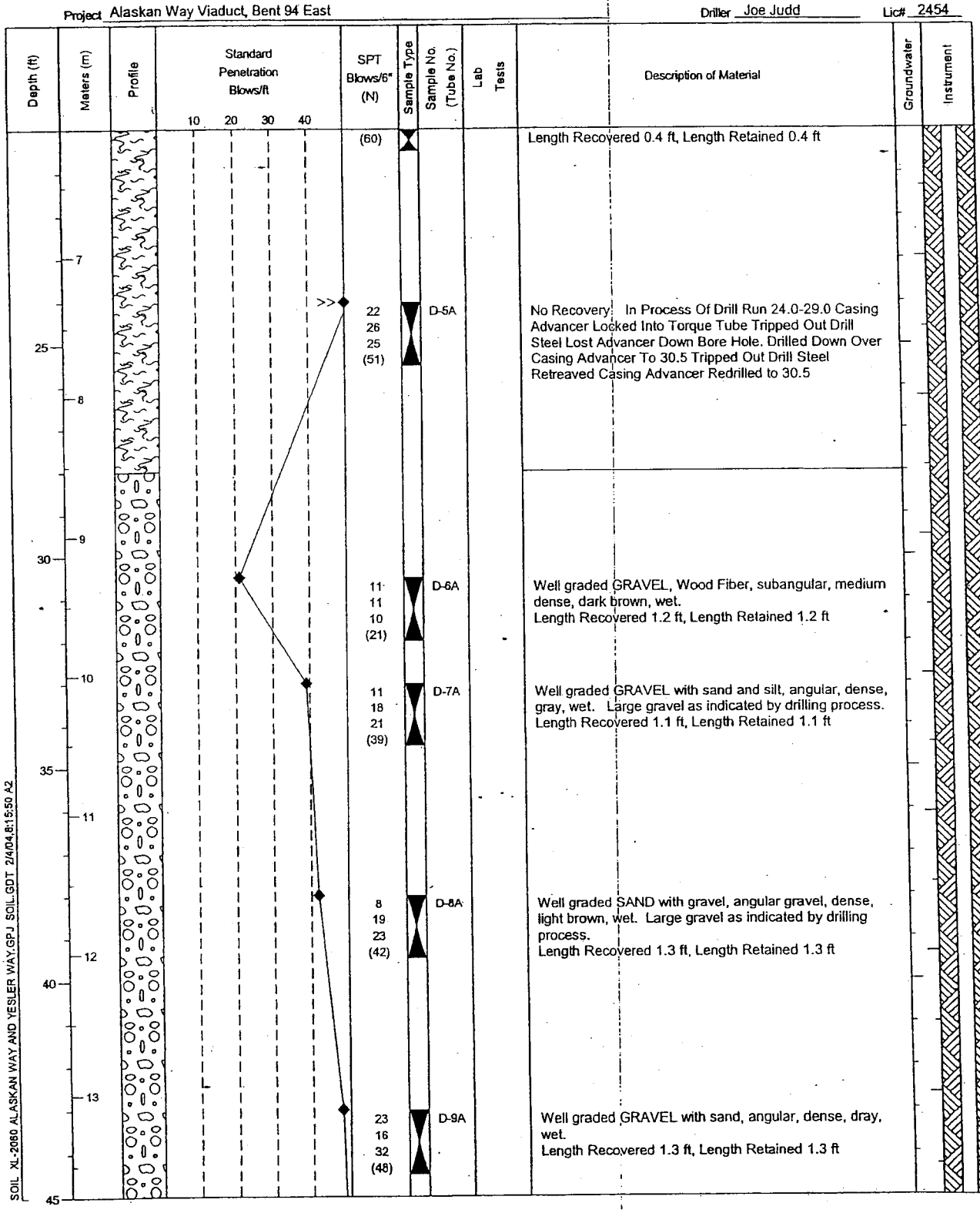
HOLE No. H-1A-03

Sheet 2 of 4

Job No. XL-2060 SR 99 Elevation (m)

Project Alaskan Way Viaduct, Bent 94 East

Driller Joe Judd Lic# 2454



SOIL XL-2060 ALASKAN WAY AND YESLER WAY.GPJ SOIL.GDT 2/4/04 8:15:50 A2

Washington State Department of Transportation

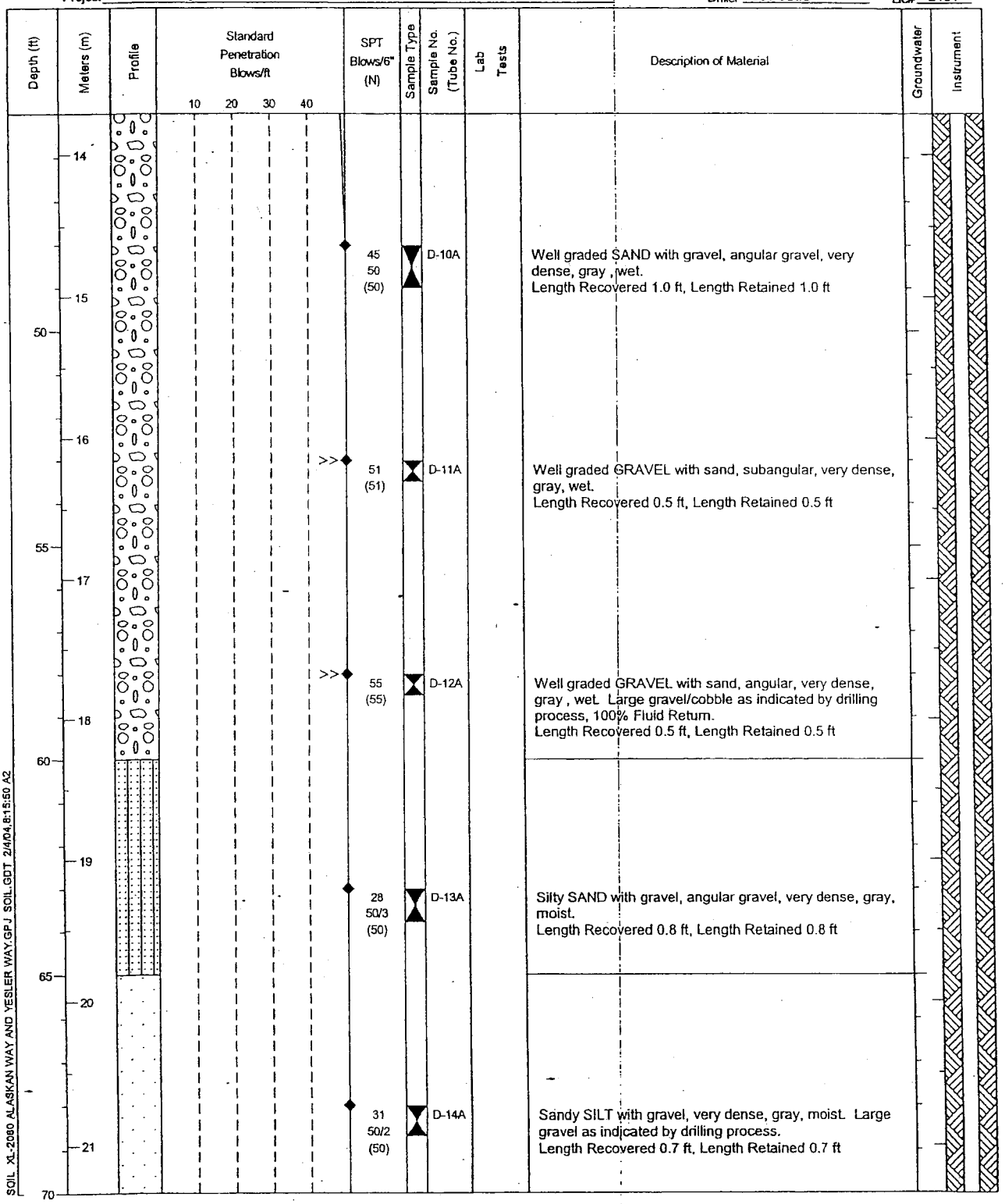
LOG OF TEST BORING

Start Card R62160

Job No. XL-2060 SR 99 Elevation (m) HOLE No. H-1A-03

Sheet 3 of 4

Project Alaskan Way Viaduct, Bent 94 East Driller Joe Judd Lic# 2454



Washington State Department of Transportation

LOG OF TEST BORING

Start Card R62160

Job No. XL-2060 SR 99 Elevation (m) HOLE No. H-1A-03

Sheet 4 of 4

Project Alaskan Way Viaduct, Bent 94 East Driller Joe Judd Lic# 2454

Depth (ft)	Meters (m)	Profile	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
	22		>>	42 57 (57)		D-15A		Sandy SILT with gravel, very dense, gray , moist, stratified. Large gravels encountered as indicated by drilling process. Length Recovered 1.0 ft, Length Retained 1.0 ft		
75	23									
			>>	12 23 33 (56)		D-16A		SILT with sand, blocky silt lenses, very dense, gray , moist, disrupted. Length Recovered 1.5 ft, Length Retained 1.5 ft		
80	24									
	25									
				15 16 25 (41)		D-17A		SILT, dense, gray, moist. Length Recovered 1.5 ft, Length Retained 1.5 ft		
85	26							End of test hole boring at 84.5 ft below ground elevation. Installed Slope/Sono Instrument In Cement Bentonite Grout With Surface Set Monument, Well Tag # AHP427. This is a summary Log of Test Boring. Soil/Rock descriptions are derived from visual field identifications and laboratory test data.		
	27									
90	28									
95										

SOIL XL-2060 ALASKAN WAY AND YESLER WAY.GPJ SOIL.GDT 2/4/04 8:15:51 A2

APPENDIX B

Summary of

Geotechnical Conditions

SUMMARY OF GEOTECHNICAL CONDITIONS

The following "SUMMARY OF GEOTECHNICAL CONDITIONS" must be included in the contract document.

PROJECT DESCRIPTION

This project includes retrofit of the existing foundations of the Alaskan Way Viaduct at the Bents 93 and 94. At this location, significant settlement of the existing foundation system has been observed since monitoring was initiated in April 2001. This project includes retrofit and repair of the existing foundation by installing micropiles, reinforcing the existing foundation and column system using dowels, and construction of a new reinforced concrete footing in accordance with the project plans.

Subsurface Conditions

Based on field explorations, the soil deposits encountered have been grouped into four soil units for geotechnical purposes; fill (Hf), estuarine silt (He), beach deposits, and overconsolidated glacial deposits (Qpgo, Qpgm, Qpgl). The soil units are grouped primarily on the basis of engineering properties and classification. The units are individually described in the following paragraphs.

Man-made fill (Hf) - The fill present beneath the site is highly variable in nature but consists primarily of loose, brown to dark grey, slightly silty to silty sand. The fill unit contains variable amounts brick, concrete and wood debris; locally being nearly completely composed of wood debris and sawdust. Based on the history of site use and on viaduct construction records, large pieces of wood debris and timber piling (used as temporary support for the viaduct) should be expected in this unit. Borings indicate that fill extends to a depth of approximately 25 to 31 feet below the site surface.

Estuarine Silt (He) – Estuarine silt consisting of loose to very loose clayey silt with trace sand underlies the man-made fill described above. Borings indicate that this unit extends to a depth of 33 to 37 feet below the site surface.

Beach Deposits (Hb) – Beach deposits consisting of dense to medium dens dark grey sandy gravel with trace to little silt underlie the estuarine silt. Borings indicate that this unit extends to a depth of approximately 37 to 43 feet below the site surface.

Overconsolidated Glacial Deposits (Qpgo, Qpgm, Qpgl) – Underlying the beach deposits to the maximum depth explored is a unit of overconsolidated glacial deposits of highly variable composition. Included in this unit are the following subunits:

- Glacial Outwash (Gpgo) generally consists of dense to very dense brown to grey gravelly sand to sandy gravel with trace to some clay and silt and occasional cobbles and potential boulders.
- Glaciomarine deposits – generally consists of medium dense to very dense clayey gravel to gravelly sand with trace clay. Also present are significant layers of hard slightly gravelly sandy, silty clay.
- Glaciolacustrine deposits – generally consists of hard to very stiff grey silty clay with trace sand and occasional gravel.

As with most glacial soils, interbedding of the above subunits is variable with respect to thickness and lateral continuity. In addition, although not specifically identified in the borings in the immediate vicinity of the project, boulders up to 5 feet in dimension may be encountered during drilling.

Construction Considerations for Various Project Elements

Site Access

The working area for this project lies directly beneath the Alaskan Way Viaduct. Accordingly, vertical clearance is limited to 20 to 25 feet, depending on location. In addition, overhead power lines are secured directly to the bottom deck of the viaduct. The Contractor should be prepared to use equipment ant construction methodologies consistent with these limited overhead conditions.

Groundwater Conditions and Disposal Construction Dewatering Groundwater

Groundwater is located at relatively shallow depths beneath the site and fluctuates in response to the tide level in nearby Elliott Bay. Tidal monitoring of groundwater depths has documented groundwater within 5 feet of the ground surface, depending on tidal conditions. The Contractor should be prepared to encounter groundwater in excavations for Bents 94 East and West, and, depending on the time of year the work is performed, groundwater may be encountered in the excavations for Bents 93 East and West. Dewatering will be required in order to construct this project. Data regarding variation in groundwater beneath the site and recommendation for excavation dewatering are contained in the letter entitled Report "*Revised Construction Dewatering Evaluation, Bents 93 & 94 Emergency Repair, Alaskan Way Viaduct and Seawall Replacement Project, Seattle, Washington"* prepared by Shannon & Wilson, Inc., May 30, 2007. Data regarding water quality for use in evaluating disposal options for water removed during dewatering is presented in the letter entitled "*Groundwater Characterization, Bents 93 & 94 Emergency Repair, Alaskan Way Viaduct and Seawall Replacement Project, Seattle, Washington"* prepared by Shannon & Wilson, Inc., May 30, 2007.

Structural excavation

Shoring will be required for Structural Excavation, Class A, adjacent to the footings. Due the presence of debris and wooden piling used for construction of the existing viaduct, there is a high probability that obstructions will be encountered during shoring installation. The Contractor should be prepared with a means of either removing the

obstructions or an alternate form of shoring that is less sensitive to the presence of obstructions.

During excavation following shoring installation, it is likely that the Contactor will encounter wooden piling. The Contractor should be prepared with a means of removing the piling and other debris encountered from the excavation.

Vibration- and Settlement-Sensitive Structures

Soils beneath the project are prone to vibration-induced settlement. The Contractor should consider this in planning and executing the work in accordance with the provisions outlined in this contract.

Soil Characterization and Disposal

As part of the geotechnical characterization work performed for this project, soil samples were collected within the foundation excavation areas and analyzed for contaminants. The resulting subsurface information and analytical results are contained in the letter entitled "*Soil Characterization and Potential Disposal Options, Bents 93 & 94 Emergency Repair, Alaskan Way Viaduct and Seawall Replacement Project, Seattle, Washington*" prepared by Shannon & Wilson, Inc., June 5, 2007. Based on the results of the chemical analysis, the Contractor should be prepared to handle excavation and disposal of contaminated soils. Based on the analysis conducted to date, disposal of excavated soils at a RCRA Subtitle D landfill that accepts contaminated soils should be anticipated.

Available Geotechnical Reports and Information

The following soils information and data were used to prepare the engineering design and contract documents for the SR-99 Yesler Way Vicinity Foundation Stabilization Project.

1. Technical Memorandum entitled *"Alaskan Way – Bent 93 and Bent 94 Foundation Retrofit Geotechnical Recommendations"* prepared by WSDOT Geotechnical Branch, March 24, 2004.

2. Letter Report entitled "*Revised Construction Dewatering Evaluation, Bents 93 & 94 Emergency Repair, Alaskan Way Viaduct and Seawall Replacement Project, Seattle, Washington"* prepared by Shannon & Wilson, Inc., May 30, 2007.

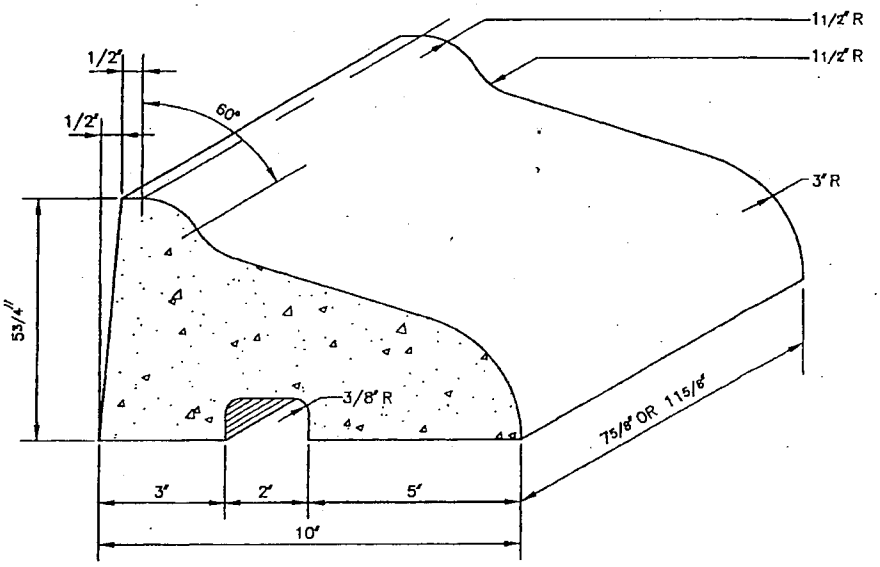
3. Letter Report entitled "*Groundwater Characterization, Bents 93 & 94 Emergency Repair, Alaskan Way Viaduct and Seawall Replacement Project, Seattle, Washington"* prepared by Shannon & Wilson, Inc., May 30, 2007.

4. Letter Report entitled "*Soil Characterization and Potential Disposal Options, Bents 93 & 94 Emergency Repair, Alaskan Way Viaduct and Seawall Replacement Project, Seattle, Washington"* prepared by Shannon & Wilson, Inc., June 5, 2007.

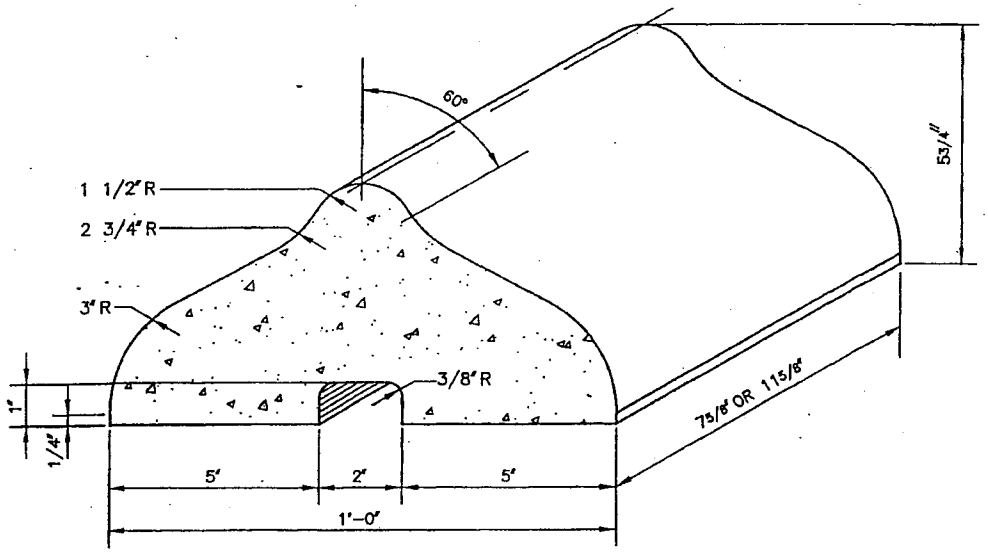
APPENDIX C

City of Seattle
Standard Plan Curb Detail

REV DATE: 2003



414 A BLOCK



414 C BLOCK

REF STD SPEC SEC 8-07

City of Seattle	NOT TO SCALE	BLOCK TRAFFIC CURBS PRECAST CEMENT CONCRETE

APPENDIX D

Seattle City Light
Material Standards

Seattle Public Utilities

Engineering Support: Standard Specifications

Contents: Division 9: Materials: Illumination and Electrical Materials

Illumination and Electrical Materials
Shaded = new this edition
Italics = from WSDOT

• 2003 Standard Specifications
• 2003 Standard Plans
• Comments
• Home
• Archived 2000 Specifications
• Archived 2000 Plans

9-31.1 LUMINAIRES

Top

9-31.1(1) GENERAL

Luminaires shall have attached to the housing, an ANSI approval decal (3 inches square) which shall be readily visible from the ground, indicating lamp type by color code (i.e., blue for Mercury Vapor, gold for High Pressure Sodium, red for Metal Halide); and lamp wattage by numerical code, i.e.:

Numerical Code	Lamp Wattage
15	150 Watt
25	250 Watt
40	400 Watt

Legends shall be a minimum of 2 inches in height and weather resistant.

The Contractor shall be prepared to provide a sample luminaire for testing when requested by the Engineer.

Top

9-31.1(2) ROADWAY LIGHTING LUMINAIRE

Luminaires shall be "cobrahead" style and shall consist of a luminaire housing, lamp, ballast, and photoelectric cell. Luminaires shall be in accordance with SCL Material Standard 5723.1 except as modified herein.

Luminaire light distribution patterns shall conform to the IES classification system for Type III medium cutoff for less than 200 watts and Type II short cutoff for 200 watts and more.

Glare control shall be accomplished by use of a flat lens. Minimum streetside utilization shall be 39 percent at 1.5 transverse mounting height. Distribution shall be free from striations and hotspots.

Top

9-31.1(3) LAMPS

High pressure sodium lamps shall be clear lamps suitable for operation in any position meet the following minimum ratings:

Wattage	Minimum Life (Hours)	Initial Lumen Output
150	24,000	16,000
250	24,000	28,800
400	24,000	50,000

Top

9-31.1(4) **RESERVED**

Top

9-31.1(5) **PHOTOELECTRIC CELLS**

Photoelectric controls shall be used with all luminaires and shall meet the requirements of SCL Material Standard 5693.0.

Top

9-31.1(6) **UNDERDECK MOUNTED UNDERCROSSING LUMINAIRE**

Underdeck luminaire shall be pendant-mounted as called for on the Drawings. The ballast shall be integral with the luminaire. Ballast housing and structural parts shall be of cast aluminum. Mounting devices *shall* provide positive, vibration-proof locking. Luminaires shall be UL listed as "Enclosed and Gasketed" and shall be suitable for wet locations. All exposed screws and/or rivets shall be of stainless-steel Material.

All exposed cast aluminum parts are to be furnished with a baked-enamel paint.

The ballast housing and optical assembly shall be provided with easy-to-read moisture-proof nameplates that can be read without disturbing the luminaire when installed.

Ballast and optical assemblies shall include provision for field mounting of safety chains.

Luminaires shall have a wiring compartment with a single fuse holder.

Mounting of the optical assembly to the ballast assembly or pendant cap shall be secured by positive vibration-proof means. The optical and ballast or pendant cap assemblies shall include a positive aligning electrical disconnect allowing the socket to be shipped factory assembled in the optical assembly.

The luminaire shall be enclosed and gasketed and shall include an activated charcoal filter to permit passage of air.

Heat-resistant polycarbonate plastic shall be used for the refractor. The optical assembly shall be hinged and latched for lamp access. An automatic disconnect shall ensure that optical assembly is electrically cold when servicing. The optical assembly shall be removable from the ballast without tools.

The filter assembly shall be factory installed, but easily removable and shall be located to prevent accidental dislodgement when the luminaire is installed.

The unit shall provide at least 3% uplight dispersed widely across the surrounding area.

Luminaire shall be suitable for continuous service in an ambient temperature of 40°C. The unit shall be weatherproof and dustproof.

Ballasts shall be multi-tap, high power factor, regulator type.

Top

9-31.1(7) WALL-PACK LUMINAIRE

The luminaire shall consist of a rear die-cast back housing which encloses the ballast, lamp socket and reflector, and a refractor frame assembly. The back casting assembly shall mount against the wall (or pole) and the refractor housing assembly shall fasten to it by means of concealed hinges and a single point, positive acting latch. There shall be plated steel retaining chain attached between the main housing and refractor frame. Overall dimensions shall be approximately 16 inches square by 10-3/8 inches deep.

Units shall be prewired and equipped to be wall mounted directly on conduit for surface wiring without bending the conduit or to a recessed outlet box, and shall require no tools for lamp replacement.

The optical train shall consist of the lamp, fluted specular aluminum reflector, and molded prismatic borosilicate thermal shock-resistant glass refractor. The dimensions of the refractor shall be approximately 16 inches square by 4 inches deep and shall have internal splitting prisms and external dispersing prisms. The refractor frame color shall be anodized aluminum.

The integral ballast shall operate the high-pressure sodium 55-volt lamp at the wattage shown on the Drawings, and provide reliable starting at temperatures as low as -20 °F. The ballast shall be multi-tap to allow field adjustments of voltage.

All insulation shall be UL listed Class H; core, coil, and capacitors shall be positioned for maximum heat dissipation. Supply wires to the unit are to be of proper temperature rating for the type of entry used. The housing shall be finished with a black polyester powder paint coating. The complete unit shall be UL listed as "Suitable for Wet Locations". The unit shall be Moldcast catalog no. PCL-1 or approved equal, to be furnished with photocontrol, wireway conduit adapter, and polycarbonate shield.

The wall-pack luminaire shall be furnished with photocontrol, wireway conduit adapter, and polycarbonate shield.

Top

9-31.2 RESERVED

Top

9-31.3 WIRE

Street light wire in conduits shall be stranded copper single conductor, with 600 volt type THWN color-coded insulation, size as indicated on the Drawings, and in accordance with SCL Material Standard 6122.3.

Wire used inside of poles and bracket arms (including wood pole mounted bracket arms) or bonded to signal spanwires shall be No. 10 stranded copper "Pole and Bracket" cable with an insulation thickness of 45 mils and a belt thickness of 95 mils. *Where the proper combination of colored conductors is unavailable in "Pole and Bracket" cable, No. 12 20-10 cable in accordance with SCL*Material Standard 6404.4 may be substituted when *allowedby the Engineer* on a submitted Shop Drawing.

Duplex wire shall consist of one black conductor and one white conductor for circuits with one "hot" conductor and one neutral conductor; and one black conductor and one red conductor for circuits with 2 hot conductors. Multiple conductors shall be color coded in accordance with the NEC. Neutral wire shall always be white. Ground wires shall be green and insulated. The first hot conductor shall be black, the second hot conductor shall be red, and the third hot conductor shall be blue. Triplex wire shall be used for overhead applications, and shall conform with SCL Material Standard 6007.3 but shall be sized as indicated on the Drawings. Wire shall be continuously color coded. Color coding will not be required for triplex wire.

Plastic molding for covering wire attached to the side of wood poles shall be in accordance with SCL Material Standard 5820.5.

Top

9-31.4 RESERVED

Top

9-31.5 WIRE SPLICES

This standard applies to wire connections made in above grade or below grade installations except where the wires are attached directly to the terminal board. All connectors shall be U.L. or equivalent, labeled and approved for the intended use.

1. Above Grade Installations: (Including connections in pole handholes)

   a. Copper to Copper Connector - The connector shall be a high strength bronze alloy of the split bolt type specified in Material Standard 6688.7.

   b. Copper to Aluminum Connector - The connector shall be of the one or two bolt type labeled CO/ALR and include an approved spacer bar.

   c. Aluminum to Aluminum Connector - The connector shall be of the 1 or 2 bolt type and meet the requirements of SCL Material Standard 6693.5.

   d. Split bolt connections shall be insulated in accordance with Section 8-30.3(5).

2. Below Grade Installations: (Including on Structures)

   a. Below grade splices shall be made in a 2 piece rigid body transparent moisture proof spliced enclosure. The body shall be webbed to ensure centering of the splice and even distribution of the encapsulant. The body and encapsulant shall be composed of Material which do not support fungi or mold. The encapsulant shall be a reenterable (gel like), transparent type. (Non-reenterable encapsulant may be approved if each splice is approved by the Engineer prior to installing encapsulant.)

b. *Connectors shall be as described in "a" above, or a copper mechanical crimp type may be used when submitted to, and allowed by, the Engineer at least 3 Working Days in advance of proposed use, or when indicated on a submitted and reviewed by the Engineer Shop Drawing. Mechanical crimp splices shall be made with an approved crimping tool.*

3. Inside Cabinets and Panels: Wire nuts may be used only inside cabinets and panels. Copper or silver plated terminals shall be used at terminal blocks.

Top

9-31.6 FUSES AND FUSE HOLDERS

The in-line fuse holder shall consist of a fuse, a two-section fuseholder body and two insulating boots, all rated at 600 volts. The fuse shall be of the voltage and amperage specified. Fuses rated at 30 amps and less shall be 600V AC non-time delay with a 100,000A interrupting rating. The fuse size shall be 13/32 inches by 1-1/2 inches in a holder rated 30 amp, 600V. Fuses rated 30 to 60 amps shall be 300V AC time delay type with a 100,000A interrupting rating. The fuse size shall be 13/32 inches by 2-1/4 inches in a holder rated 60 amp, 300V.

The fuseholder body shall be made of waterproof molded plastic, in two sections: the line-side section and the load-side section. Their purpose is to provide a visible means of disconnect for circuit repairs or maintenance. The fuse shall be held in the load-side section only. Each section shall be totally enclosed at the wire entrance end and the sections shall be joined by a threaded, gasketed joint. The fuseholder body shall be designed to confine any electric arc, should the fuseholder be closed on a live circuit.

Fuse holder terminals shall be compression or screw type, sized for the actual wire utilized. Only one wire shall be installed in any terminal.

Insulating boots shall be used to waterproof the wire connections. The type of insulating boot shall be a single conductor boot for the load-side and a single conductor boot for the line-side.

The fuse shall be a current limiting type with a high speed opening and an interrupting rating of 100,000 rms symmetrical amperes. The fuse shall have a minimum time delay of 25 seconds at 200 percent load, but not great enough to result in a safety loss during overload or short-circuit conditions.

The fuse shall be designed so that the carrying capacity or opening time is little affected by ambient temperature and shall operate with low watt loss to reduce heating.

Top

9-31.7 GROUND RODS, CLAMPS, AND HARDWARE

Ground rods shall be fabricated from cold-finished carbon steel shafting in accordance with ASTM A 108 as it applies to Grade 1018. Galvanized ground rods shall not be used.

The covering of the steel core shall be a sheath of electrolytic-grade copper having a minimum thickness of 0.010 inches. The rods shall have rolled threads at each end for joining together with couplings. Rods shall be 10 feet in length and 5/8 inch diameter. Rods shall conform to SCL Material Standard 5642.1, except for length, and shall conform to NEC requirements.

Couplings for sectional rods shall be made of high-strength, corrosion-resistant bronze, internally threaded to fit standard rods.

Driving studs shall be made of high-strength, hardened steel of SAE 1045 or equal quality.

Ground rod clamps shall meet the requirements of SCL Material Standard 5640.3. Ground rod clamps shall conform to NEC requirements.

Ground plates shall be a minimum of 2 square feet surface area copper plate.

Top

9-31.8 ENCLOSURES

Enclosures located outside shall be weather-proof type, NEMA Type 3R. All doors and covers shall be gasketed. All enclosure metal shall be formed of stainless steel or aluminum as noted on the Standard Plans, and shall be constructed to the dimensions shown on the Drawings. All doors shall be provided with a heavy duty hasp suitable for padlocking.

All joints shall be seam welded. Enclosures shall be fabricated to allow for anchor bolt mounting.

A permanent sign shall be attached to the exterior of the enclosure cover or door. The sign shall be engraved into a 2 inch x 6 inch stainless steel plate with a minimum thickness of 18 gauge. The lettering shall be in 3 lines as follows:

DANGER

HIGH VOLTAGE

KEEP OUT

The letters shall be 1/2 inch high with a stroke width of 3/32 inch, and shall be filled with a red paint.

The completed sign shall be coated with a clear polyurethane enamel with exterior catalyst and attached to the enclosure cover with a minimum of 6 stainless steel drive rivets.

Top

9-31.9 RECEPTACLES

All duplex receptacles shall be 20 amp, 125 volt, AC, GFCI, Hospital Grade receptacles, to be UL listed "Hospital Grade" under UL No. 498. Receptacles shall be Hubbell GF-8300, or approved equal.

Top

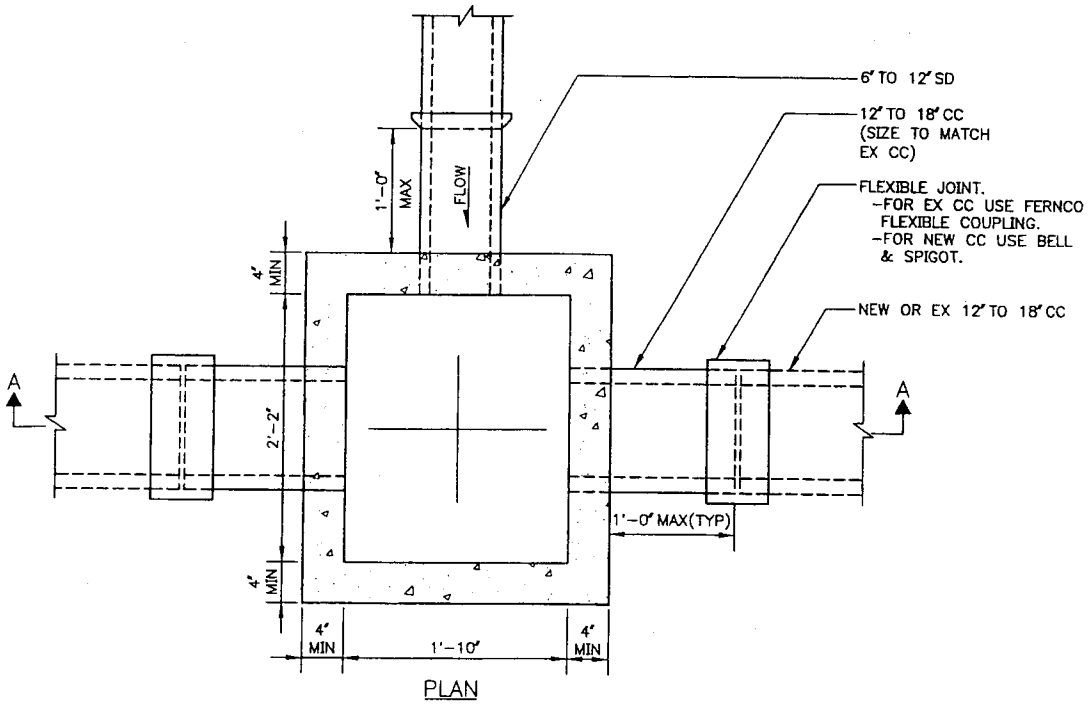
700 Fifth Avenue, Suite 4900 Seattle, WA 98104-5020
(206) 684-3000 -- Respond.SPU@seattle.gov

APPENDIX E

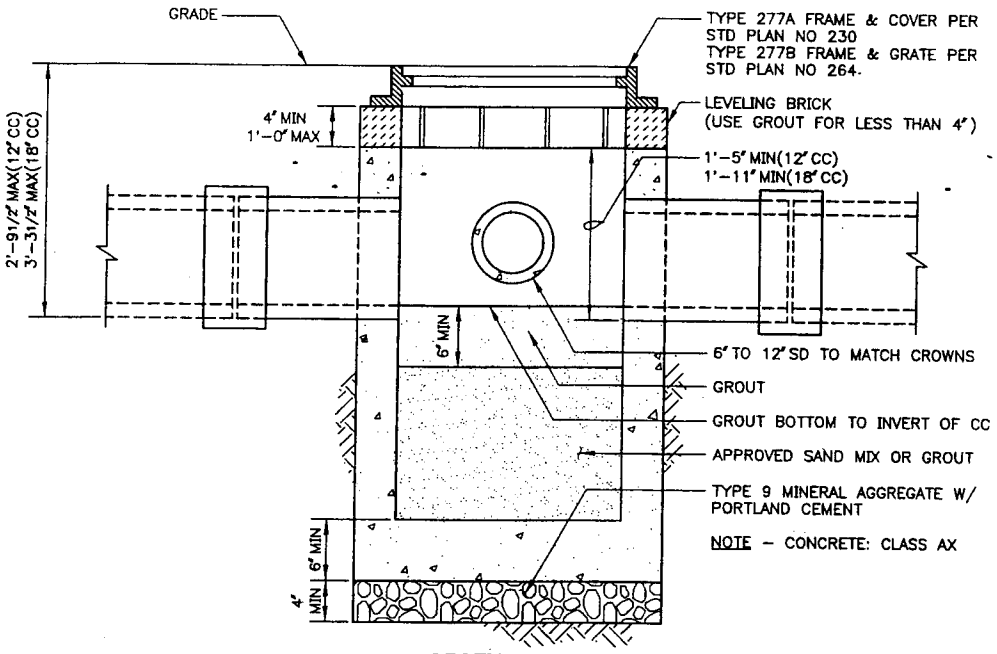
City of Seattle
Standard Plans 277 and 230

STANDARD PLAN NO 277

REV DATE: 2003



PLAN

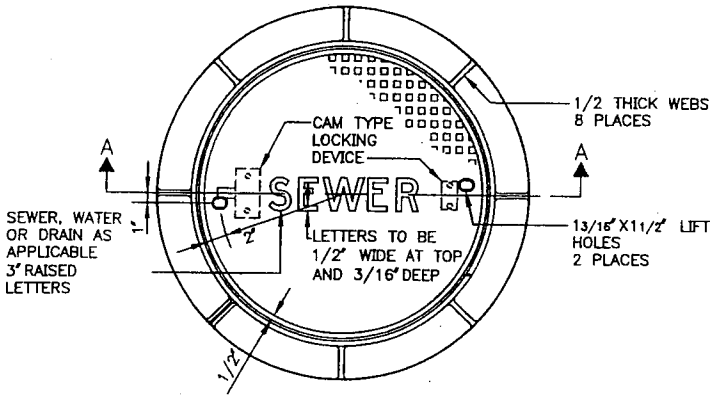


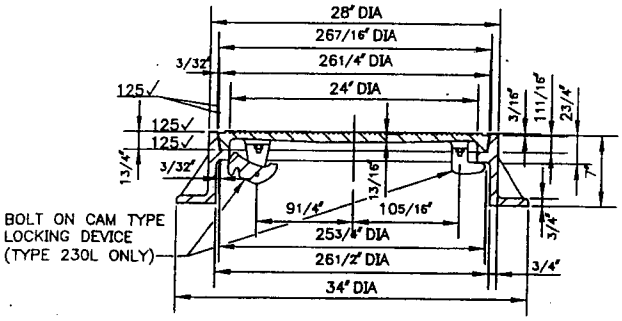
SECTION A-A

REF STD SPEC SEC 7-02 & 9-12.9

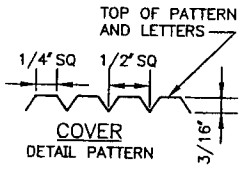
City of Seattle	NOT TO SCALE	TYPE 277 JUNCTION BOX & INSTALLATION

REV DATE: 2005





SECTION
A–A



COVER
DETAIL PATTERN

NOTES:

1. DESIGNATE LOCKING COVER AS TYPE 230L FOR USE IN NON–VEHICULAR TRAFFIC AREAS.
2. FOR 7" RIGID PAVEMENT, THE FRAME AND COVER SHALL BE CONSTRUCTED TO THE FINISHED GRADE OF THE PAVEMENT. REINFORCEMENT SHALL BE PLACED AROUND THE CASTING AT MID–POINT BETWEEN THE FINISHED GRADE OF THE PAVEMENT AND THE TOP OF THE FLANGE. #4 REINFORCING BARS SHALL BE USED IN THE CONFIGURATION OF 2 SEPARATE SQUARES OFF–ROTATED 45 DEGREES FROM EACH OTHER AND GIVING A CLEARANCE OF 2 INCHES AT THE SHORTEST DISTANCE WITH THE FRAME
3. FOR RIGID PAVEMENT DEPTH GREATER THAN 7", USE FRAME EXTENSION(S) (STANDARD PLAN NO 231) TO BRING THE COVER UP TO THE LEVEL OF THE FINISHED PAVEMENT WITHOUT EMBEDDING THE BOTTOM FLANGE OF THE CASTING IN THE PAVEMENT
4. COVER THICKNESS IS MEASURED FROM THE BOTTOM OF THE PATTERN
5. REFER TO SECTION 5–05 FOR OTHER REQUIREMENTS FOR REINFORCING BARS
6. FRAMES SHALL BE MANUFACTURED FROM CAST IRON OR DUCTILE IRON
7. COVERS SHALL BE MANUFACTURED FROM DUCTILE IRON

REF STD SPEC SEC 7-05

City of Seattle	NOT TO SCALE	2'-0" DIAMETER FRAME & COVER

Required Contract Provisions Federal-Aid Construction Contracts

FHWA-1273 Electronic Version – March 10, 1994

Attachments

I. GENERAL

1. 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.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

   Section I, paragraph 2;
   Section IV, paragraphs 1, 2, 3, 4, and 7;
   Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 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 DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

   a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

   b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

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 (28 CFR 35, 29 CFR 1630 and 41 CFR 60) 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 Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 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 State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

   b. The contractor will accept as his 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, 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, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO 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 who 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.

    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 minority group employees.

    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 minority groups 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 minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group 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, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have

the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group 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, national origin, age or disability. The following procedures shall be followed:

   a. The contractor will conduct periodic inspections of project sites to insure 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 his 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 his avenues of appeal.

6. **Training and Promotion:**
   a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

   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. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

   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 minority group and women employees 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 his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. 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 best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

   b. The contractor will use best 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, 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 SHA 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 minority and women 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, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) 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 SHA.

8. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

   a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

   b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful

minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. **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 completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

   a. The records kept by the contractor shall document the following:
      1. The number 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;
      3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
      4. The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

   b. The contractors will submit an annual report to the SHA 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. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color,

religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. **General:**

a. All mechanics and laborers employed or working upon the site of the work 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 (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall 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. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, 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 shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. 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.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. **Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

1. the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

2. the additional classification is utilized in the area by the construction industry;

3. the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

4. with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification 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 shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour 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.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional 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 shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said 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.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. **Payment of Fringe Benefits:**

a. 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 or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a 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, 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.

4. **Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

a. Apprentices:

1. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

2. The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in 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 the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate)

specified in the contractor's or subcontractor's registered program shall be observed.

3. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall 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 for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

4. In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

1. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

2. The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

3. Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

4. In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. **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. 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 journeymen shall not be greater than permitted by the terms of the particular program.

6. **Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, 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.

7. **Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. **Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. 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, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. **Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or 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, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. **Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. **Payrolls and Payroll Records:**

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the

labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found 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 Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

    1. that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

    2. that such laborer or mechanic (including each helper, apprentice, and trainee) employed 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 the Regulations, 29 CFR 3;

    3. that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions 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 may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

   a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

   b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

   c. furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

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 State. 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).

a. "Its own organization" shall be construed to include only workers employed and paid directly 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, assignee, or agent of the prime contractor.

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 on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII 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. 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 SHA 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 SHA 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 SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

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 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA 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.

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 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. 333).

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. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

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 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more that $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. **Instructions for Certification - Primary Covered Transactions:**

   (Applicable to all Federal-aid contracts - 49 CFR 29)

   a. By signing and submitting this proposal, the prospective primary 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 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 primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary 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.

g. The prospective primary 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 Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

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. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. 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.

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.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

   a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

   b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement 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;

   c. 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 1b of this certification; and

   d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. **Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

   a. By signing and submitting this proposal, the prospective lower tier 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.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

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.

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.

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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

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.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

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 his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT PREFERENCE FOR APPALACHIAN CONTRACTS

(Applicable to Appalachian contracts only.)

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 he 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, he 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 1 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 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.

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS
(Exclusive of Appalachian Contracts)

Under Section II, Paragraph 8b is revised as follows:

The reference to 49 CFR 23 is revised to read 49 CFR 26.

Under Section II, Paragraph 8b is supplemented with the following:

The contractor, sub-recipient 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 USDOT-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.

Under Section II, in accordance with standard specification 1-08.1(1) and applicable RCWs a new paragraph 8d is added as follows:

The contractor or subcontractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract and/or agreement no later than ten (10) days from the receipt of each payment the prime contractor receives from WSDOT or its sub-recipients. The prime contractor agrees further to return retainage payments to each subcontractor within ten (10) days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the WSDOT. This clause covers both DBE and non-DBE contractors.

Under Section IV, Paragraph 2b(4) is deleted.

Under Section IV, Paragraph 4, "and helpers" is deleted from the title.

Under Section IV, Paragraph 4a(1), add:

The provisions in this section allowing apprentices to work at less than the predetermined rate when they are registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, or with the Bureau of Apprenticeship and Training, does not preclude a requirement for the Contractor to pay apprentices the full applicable predetermined rate in the event a State Apprenticeship Agency, recognized by the Bureau, has not approved, or withdraws approval, of an apprenticeship program.

Under Section IV, Paragraph 4c is deleted.

Under Section IV, Paragraph 6 is revised by deleting "helpers" and "helper".

Under Section IV, Paragraph 7 is revised by deleting "helpers".

Under Section V, Paragraph 2a is revised by deleting "helpers".

Under Section V, Paragraph 2d(2) is revised by deleting "helper".

Section VI, Records Of Material, Supplies, And Labor, is deleted.

Amendment to Form FHWA 1273
Revised May 25, 2007

General Decision Number: WA070001 08/03/2007 WA1

Superseded General Decision Number: WA030001

State: Washington

Construction Types: Heavy (Heavy and Dredging) and Highway

Counties: Washington Statewide.

HEAVY AND HIGHWAY AND DREDGING CONSTRUCTION PROJECTS (Excludes D.O.E. Hanford Site in Benton and Franklin Counties)

Modification Number	Publication Date	Modification Number	Publication Date
0	02/09/2007		
1	02/16/2007		
2	02/23/2007		
3	03/09/2007		
4	03/23/2007		
5	04/06/2007		
6	04/20/2007		
7	04/27/2007		
8	05/11/2007		
9	05/25/2007		
10	06/01/2007		
11	06/22/2007		
12	07/06/2007		
13	07/13/2007		
14	07/27/2007		
15	**08/03/2007**		

CARP0001-008 06/01/2007

Carpenters:

COLUMBIA RIVER AREA -
ADAMS, BENTON, COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN) AND WALLA WALLA COUNTIES

	Rates	Fringes
GROUP 1:	$ 25.68	9.30
GROUP 2:	$ 27.18	9.30
GROUP 3:	$ 25.95	9.30
GROUP 4:	$ 25.68	9.30
GROUP 5:	$ 59.40	9.30
GROUP 6:	$ 28.70	9.30

SPOKANE AREA:
ASOTIN, GARFIELD, LINCOLN, PEND OREILLE, SPOKANE, STEVENS AND WHITMAN COUNTIES

GROUP 1:	$ 25.01	9.30
GROUP 2:	$ 26.51	9.30
GROUP 3:	$ 25.27	9.30
GROUP 4:	$ 25.01	9.30
GROUP 5:	$ 58.04	9.30
GROUP 6:	$ 28.02	9.30

CARPENTERS CLASSIFICATIONS

GROUP 1: Carpenter; Burner-Welder; Rigger and Signaler; Insulators (all types), Acoustical, Drywall and Metal Studs, Metal Panels and Partitions; Floor Layer, Sander, Finisher and Astro Turf; Layout Carpenters; Form Builder; Rough Framer; Outside or Inside Finisher, including doors, windows, and jams; Sawfiler; Shingler (wood, composition) Solar, Fiberglass, Aluminum or Metal; Scaffold Erecting and Dismantling; Stationary Saw-Off Bearer; Wire, Wood and Metal Lather Applicator

GROUP 2: Millwright, machine erector

GROUP 3: Piledriver - includes driving, pulling, cutting, placing collars, setting, welding, or creosote treated material, on all piling

GROUP 4: Bridge, dock and wharf carpenters

GROUP 5: Divers

GROUP 6: Divers Tender

ZONE PAY:

ZONE 1	0-40 MILES	FREE
ZONE 2	41-65 MILES	$2.25/PER HOUR
ZONE 3	66-100 MILES	$3.25/PER HOUR
ZONE 4	OVER 100 MILES	$4.75/PER HOUR

DISPATCH POINTS:
CARPENTERS/MILLWRIGHTS: PASCO (2819 W. SYLVESTER) or Main Post Office of established residence of employee, whichever is closest to the worksite.

CARPENTERS/PILEDRIVER: SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee, whichever is closest to the worksite.

CARPENTERS: WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee, whichever is closest to the worksite.

CARPENTERS: COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main Post Office of established residence of employee, whichever is closest to the worksite.

CARPENTERS: MOSCOW (302 N. JACKSON) or Main Post Office of established residence of employee, whichever is closest to the worksite.

DEPTH PAY FOR DIVERS BELOW WATER SURFACE:
50-100 feet $2.00
101-150 feet $3.00
151-220 feet $4.00
221 feet and deeper $5.00

PREMIUM PAY FOR DIVING IN ENCLOSURES WITH NO VERTICAL ASCENT:
0-25 FEET Free
26-300 feet $1.00

HAZMAT PROJECTS:

Anyone working on a HAZMAT job (task), where HAZMAT certification is required, shall be compensated at a premium, in addition to the classification working in as follows:

LEVEL D + $.25 per hour - This is the lowest level of protection. No respirator is used and skin protection is minimal.
LEVEL C + $.50 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B + $.75 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit".

LEVEL A +$1.00 per hour - This level utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line.

CARP0003-006 06/01/2006

SOUTHWEST WASHINGTON: CLARK, COWLITZ, KLICKITAT, 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 and INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY

SEE ZONE DESCRIPTION FOR CITIES BASE POINTS

ZONE 1:

	Rates	Fringes
Carpenters:		
CARPENTERS; ACOUSTICAL	$ 29.49	11.28
DIVERS TENDERS	$ 32.18	11.28
DIVERS	$ 69.76	11.28
DRYWALL	$ 29.49	11.28
FLOOR LAYERS & FLOOR FINISHERS (the laying of all hardwood floors nailed and mastic set, parquet and wood-type tiles, and block floors, the sanding and finishing of floors, the preparation of old and new floors when the materials mentioned above are to be installed); INSULATORS (fiberglass and similar irritating materials	$ 29.64	11.28
MILLWRIGHTS	$ 29.99	11.28
PILEDRIVERS	$ 29.99	11.28

DEPTH PAY:
50 TO 100 FEET $1.00 PER FOOT OVER 50 FEET
101 TO 150 FEET $1.50 PER FOOT OVER 101 FEET
151 TO 200 FEET $2.00 PER FOOT OVER 151 FEET

Zone Differential (Add up Zone 1 rates):
Zone 2 - $0.85
Zone 3 - 1.25
Zone 4 - 1.70
Zone 5 - 2.00
Zone 6 - 3.00

BASEPOINTS: ASTORIA, LONGVIEW, PORTLAND, THE DALLES, AND VANCOUVER, (NOTE: All dispatches for Washington State Counties: Cowlitz, Wahkiakum and Pacific shall be from Longview Local #1707 and mileage shall be computed from that point.)

ZONE 1: Projects located within 30 miles of the respective city hall of the above mentioned cities
ZONE 2: Projects located more than 30 miles and less than 40 miles of the respective city of the above mentioned cities
ZONE 3: Projects located more than 40 miles and less than 50 miles of the respective city of the above mentioned cities
ZONE 4: Projects located more than 50 miles and less than 60 miles of the respective city of the above mentioned cities.
ZONE 5: Projects located more than 60 miles and less than 70 miles of the respective city of the above mentioned cities
ZONE 6: Projects located more than 70 miles of the respected city of the above mentioned cities

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CARP0770-003 06/01/2006

	Rates	Fringes
Carpenters:		
CENTRAL WASHINGTON: CHELAN, DOUGLAS (WEST OF THE 120TH MERIDIAN), KITTITAS, OKANOGAN (WEST OF THE 120TH MERIDIAN) AND YAKIMA COUNTIES		
ACCOUSTICAL WORKERS	$ 22.05	10.65
CARPENTERS AND DRYWALL APPLICATORS	$ 22.05	10.65
CARPENTERS ON CREOSOTE MATERIAL	$ 22.05	10.65
DIVERS TENDER	$ 33.29	10.93
DIVERS	$ 74.82	10.93
INSULATION APPLICATORS	$ 22.05	10.65
MILLWRIGHT AND MACHINE ERECTORS	$ 31.34	10.65
PILEDRIVER, BRIDGE DOCK AND WHARF CARPENTERS	$ 30.34	10.65
PILEDRIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING	$ 30.34	10.65
SAWFILERS, STATIONARY POWER SAW OPERATORS, FLOOR FINISHER, FLOOR LAYER, SHINGLER, FLOOR SANDER OPERATOR AND OPERATORS OF OTHER STATIONARY WOOD WORKING TOOLS	$ 22.05	10.65

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:	
0 -25 radius miles	Free
26-35 radius miles	$1.00/hour
36-45 radius miles	$1.15/hour
46-55 radius miles	$1.35/hour
Over 55 radius miles	$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:	
0 -25 radius miles	Free
26-45 radius miles	$ .70/hour
Over 45 radius miles	$1.50/hour

CARP0770-006 06/01/2006

Carpenters: WESTERN WASHINGTON:
CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS (excludes piledrivers only), MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
ACOUSTICAL WORKERS	$ 30.50	10.93
BRIDGE, DOCK & WHARF CARPENTERS	$ 30.34	10.93
CARPENTERS AND DRYWALL APPLICATORS	$ 30.34	10.93
CARPENTERS ON CREOSOTE MATERIAL	$ 30.44	10.93
DIVERS TENDER	$ 33.29	10.93
DIVERS	$ 74.82	10.93
INSULATION APPLICATORS	$ 30.34	10.93
MILLWRIGHT AND MACHINE ERECTORS	$ 31.34	10.93
PILEDRIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING	$ 30.54	10.93
SAWFILERS, STATIONARY POWER SAW OPERATORS, FLOOR FINISHER, FLOOR LAYER, SHINGLER, FLOOR SANDER OPERATOR AND OPERATORS OF OTHER STATIONARY WOOD WORKING TOOLS	$ 30.47	10.93

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:
0 -25 radius miles Free
26-35 radius miles $1.00/hour
36-45 radius miles $1.15/hour
46-55 radius miles $1.35/hour
Over 55 radius miles $1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:
0 -25 radius miles Free
26-45 radius miles $ .70/hour
Over 45 radius miles $1.50/hour

ELEC0046-001 06/05/2006

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

	Rates	Fringes
Cable splicer	$ 37.95	3%+13.21
Electrician	$ 34.50	3%+13.21

ELEC0048-003 01/01/2007

CLARK, KLICKITAT AND SKAMANIA COUNTIES

	Rates	Fringes
Cable splicer	$ 33.25	3%+$13.90
ELECTRICIAN	$ 33.00	3%+$13.90

ELEC0073-001 11/01/2006

ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN COUNTIES

	Rates	Fringes
Cable splicer	$ 25.07	3%+12.03
ELECTRICIAN	$ 24.67	3%+12.03

ELEC0076-002 03/01/2007

GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
Cable splicer	$ 36.31	3%+13.19
ELECTRICIAN	$ 32.71	3%+13.19

ELEC0077-002 02/01/2007

	Rates	Fringes
Line Construction:		
CABLE SPLICERS	$ 42.09	3.875+10.60
GROUNDMEN	$ 26.31	3.875%+8.60
LINE EQUIPMENT MEN	$ 32.32	3.875%+8.70
LINEMEN, POLE SPRAYERS, HEAVY LINE EQUIPMENT MAN	$ 37.58	3.875%+10.60
POWDERMEN, JACKHAMMERMEN	$ 28.19	3.875%+8.60
TREE TRIMMER	$ 22.65	3.875%+8.35

ELEC0112-005 06/04/2007

ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA WALLA, YAKIMA COUNTIES

	Rates	Fringes
Cable splicer	$ 33.50	3%+13.33
ELECTRICIAN	$ 31.90	3%+13.33

ELEC0191-003 09/01/2006

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

	Rates	Fringes
Cable splicer	$ 34.55	3%+11.97
ELECTRICIAN	$ 31.41	3%+11.97

ELEC0191-004 09/01/2006

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

	Rates	Fringes
Cable splicer	$ 30.15	3%+11.92
ELECTRICIAN	$ 27.41	3%+11.92

ELEC0970-001 06/01/2007

COWLITZ AND WAHKIAKUM COUNTIES

	Rates	Fringes
Cable splicer	$ 32.67	3%+11.00
ELECTRICIAN	$ 29.70	3%+11.11

ENGI0302-003 06/01/2007

CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, KITTITAS, MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, SKAGIT, SNOHOMISH, WHATCOM AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES

PROJECTS: CATEGORY A PROJECTS (EXCLUDES CATEGORY B PROJECTS, AS SHOWN BELOW)

Zone 1 (0-25 radius miles):

	Rates	Fringes
Power equipment operators:		
Group 1A	$ 33.21	12.75
Group 1AA	$ 33.78	12.75
Group 1AAA	$ 34.34	12.75
Group 1	$ 32.66	12.75
Group 2	$ 32.17	12.75
Group 3	$ 31.75	12.75
Group 4	$ 29.39	12.75

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) - $ .70
Zone 3 (Over 45 radius miles) - $1.00

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom (including jib with attachments); Tower crane over 175 ft in height, base to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead 6 yards to, but not including 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9, HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self propelled 45 yards and over; Slipform pavers; Transporters, all truck or track type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-Concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-overhead, bridge type-20 tons through 44 tons; Chipper; Concrete Pump-truck mount with boom attachment; Crusher; Deck Engineer/Deck Winches (power); Drilling machine; Excavator, shovel, backhoe-3yards and under; Finishing Machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Horizontal/directional drill operator; Loaders-overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics-all; Mixers-asphalt plant; Motor patrol graders-finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self propelled, hard tail end dump, articulating off-road equipment-under 45 yards; Subgrade trimmer; Tractors, backhoes-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 dozer

GROUP 3 - Conveyors; Cranes-thru 19 tons with attachments; A-frame crane over 10 tons; Drill oilers-auger type, truck or crane mount; Dozers-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; Loader-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pumps-concrete; Roller, plant mix or multi-lift materials; Saws-concrete; Scrapers-concrete and carry-all; Service engineer-equipment; Trenching machines; Truck Crane Oiler/Driver under 100 tons; Tractors, backhoe 75 hp and under

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete finish machine-laser screed; Cranes-A frame-10 tons and under; Elevator and Manlift-permanent or shaft type; Gradechecker, Stakehop; Forklifts under 3000 lbs. with attachments; 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

Category B Projects: 95% of the basic hourly rate for each group plus full fringe benefits applicable to category A projects shall apply to the following projects. A Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS:

Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be 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
H-2 Class "C" Suit - Base wage rate plus $ .25 per hour.
H-3 Class "B" Suit - Base wage rate plus $ .50 per hour.
H-4 Class "A" Suit - Base wage rate plus $ .75 per hour.

ENGI0302-009 06/01/2006

CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, KITTITAS, MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA,SKAGIT, SNOHOMISH, WHATCOM AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 95% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

WORK PERFORMED ON HYDRAULIC DREDDGES:
Zone 1 (0-25 radius miles):

	Rates	Fringes
Power equipment operators:		
GROUP 1		
TOTAL PROJECT COST $300,000 AND OVER	$ 30.01	11.50
TOTAL PROJECT COST UNDER $300,000	$ 26.96	8.40
GROUP 2		
TOTAL PROJECT COST $300,000 AND OVER	$ 30.14	11.50
TOTAL PROJECT COST UNDER $300,000	$ 27.06	8.40

GROUP 3		
TOTAL PROJECT COST		
$300,000 AND OVER.....	$ 30.52	11.50
TOTAL PROJECT COST UNDER		
$300,000.....	$ 27.38	8.40
GROUP 4		
TOTAL PROJECT COST		
$300,000 AND OVER.....	$ 30.57	11.50
TOTAL PROJECT COST UNDER		
$300,000.....	$ 27.43	8.40
GROUP 5		
TOATL PROJECT COST		
$300,000 AND OVER.....	$ 32.14	11.50
TOTAL PROJECT COST UNDER		
$300,000.....	$ 28.75	8.40
GROUP 6		
TOTAL PROJECT COST		
$300,000 AND OVER.....	$ 30.01	11.50
TOTAL PROJECT COST UNDER		
$300,000.....	$ 26.96	8.40

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) - $ .70
Zone 3 (Over 45 radius miles) - $1.00

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: Assistant Mate (Deckhand
GROUP 2: Oiler
GROUP 3: Assistant Engineer (Electric, Diesel, Steam or Booster Pump); Mates and Boatmen
GROUP 4: Craneman, Engineer Welder
GROUP 5: Leverman, Hydraulic
GROUP 6: Maintenance

Category B Projects: 95% of the basic hourly rate for each group plus full fringe benefits applicable to category A projects shall apply to the following projects. A Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

Heavy Wage rates (Category A) Applies to clam shell dredge, hoe and dipper, shovels and shovel attachments, cranes and bulldozers.

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

H-2 Class "C" Suit - Base wage rate plus $ .25 per hour.

H-3 Class "B" Suit - Base wage rate plus $ .50 per hour.

H-4 Class "A" Suit - Base wage rate plus $ .75 per hour.

ENGI0370-002 06/01/2007

ADAMS, ASOTIN, BENTON, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

ZONE 1:

	Rates	Fringes
Power equipment operators:		
GROUP 1A	$ 22.69	9.02
GROUP 1	$ 23.24	9.02
GROUP 2	$ 23.56	9.02
GROUP 3	$ 24.17	9.02
GROUP 4	$ 24.33	9.02
GROUP 5	$ 24.49	9.02
GROUP 6	$ 24.77	9.02
GROUP 7	$ 25.04	9.02
GROUP 8	$ 26.14	9.02

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - $2.00

Zone 1: Within 45 mile radius of Spokane, Moses Lake, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Moses Lake, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1A: Boat Operator; Crush Feeder; Oiler; Steam Cleaner

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Drillers Helper (Assist driller in making drill rod connections, service drill engine and air compressor, repair drill rig and drill tools, drive drill support truck to and on the job site, remove drill cuttings from around bore hole and inspect drill rig while in operation); Fireman & Heater Tender; Grade Checker; 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

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled; Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat; 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; Tractor (to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond)(operate drilling machine, drive or transport drill rig to and on job site and weld well casing); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment(8 inch bit & over) (Robbins, reverse circulation & similar)(operates drilling machine, drive or transport drill rig to and on job site and weld well casing); 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)

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, Athey & Huber); Boom Cats (side); Cable Controller (dispatcher); Clamshell Operator (under 3 yds.); 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; Draglines (under 3 yds.); Drill Doctor; H.D. Mechanic; H.D. Welder; 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.); Tractors (D-6 & equilvalent & over); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker

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

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

BOOM PAY: (All Cranes, Including Tower)
180 ft to 250 ft $ .30 over scale
Over 250 ft $ .60 over scale

NOTE:
In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:
Anyone working on HAZMAT jobs, working with supplied air shall receive $1.00 an hour above classification.

ENGI0370-006 06/01/2006

ADAMS, ASOTIN, BENTON, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

WORK PERFORMED ON HYDRAULIC DREDGES

	Rates	Fringes
Hydraulic Dredge		
GROUP 1:	$ 30.01	11.50
GROUP 2:	$ 30.52	11.50
GROUP 3:	$ 30.57	11.50
GROUP 4:	$ 32.14	11.50
GROUP 5:	$ 30.01	11.50
GROUP 6:	$ 30.14	11.50
GROUP 7:	$ 30.52	11.50

GROUP 1: Assistant Mate (Deckhand)
GROUP 2: Assistant Engineer (Electric, Diesel, Steam, or Booster Pump)
GROUP 3: Engineer Welder
GROUP 4: Leverman, Hydraulic
GROUP 5: Maintenance
GROUP 6: Oiler
GROUP 7: Mates & Boatman

HEAVY WAGE RATES APPLIES TO CLAM SHELL DREDGE, HOE AND DIPPER, SHOVELS AND SHOVEL ATTACHMENTS, CRANES AND BULLDOZERS.

ENGI0612-001 06/01/2006

LEWIS, PIERCE, PACIFIC (THAT PORTION WHICH LIES NORTH OF A PARALLEL LINE EXTENDED WEST FROM THE NORTHERN BOUNDARY OF WAHKAIKUM COUNTY TO THE SEA IN THE STATE OF WASHINGTON) AND THURSTON COUNTIES

PROJECTS:
CATEGORY A PROJECTS (excludes Category B projects, as shown below)

	Rates	Fringes
Power equipment operators:		
WORK PERFORMED ON HYDRAULIC DREDGES: Total Project cost $300,000 and over		
GROUP 1	$ 30.01	11.50
GROUP 2	$ 30.14	11.50
GROUP 3	$ 30.52	11.50
GROUP 4	$ 30.57	11.50
GROUP 5	$ 32.14	11.50
GROUP 6	$ 30.01	11.50
WORK PERFORMED ON HYDRAULIC DREDGES: Total Project Cost under $300,000		
GROUP 1	$ 26.96	8.40
GROUP 2	$ 27.06	8.40
GROUP 3	$ 27.38	8.40
GROUP 4	$ 27.43	8.40
GROUP 5	$ 28.75	8.40
GROUP 6	$ 26.96	8.40

ZONE 2 (26-45 radius miles) - Add $.70 to Zone 1 rates
ZONE 3 (Over 45 radius miles) - Add $1.00 to Zone 1 rates

BASEPOINTS: Tacoma, Olympia, and Centralia

CATEGORY B PROJECTS - 95% of the basic hourly rate for each group plus full fringe benefits applicable to Category A projects shall apply to the following projects: Reduced rates may be paid on the following:
1. Projects involving work on structures such as buildings and structures 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

WORK PERFORMED ON HYDRAULIC DREDGES:

GROUP 1: Assistant Mate (Deckhand
GROUP 2: Oiler
GROUP 3: Assistant Engineer (Electric, Diesel, Steam or Booster Pump); Mates and Boatmen
GROUP 4: Craneman, Engineer Welder
GROUP 5: Leverman, Hydraulic
GROUP 6: Maintenance

HEAVY WAGE RATES APPLIES TO CLAM SHEEL DREDGE, HOE AND DIPPER, SHOVELS AND SHOVEL ATTACHMENTS, CRANES AND BULLDOZERS

HANDLING OF HAZARDOUS WASTE MATERIALS

H-1 - When not outfitted with protective clothing of level D equipment - Base wage rate
H-2 - Class "C" Suit - Base wage rate + $.25 per hour
H-3 - Class "B" Suit - Base wage rate + $.50 per hour
H-4 - Class "A" Suit - Base wage rate +$.75 per hour

ENGI0612-002 06/01/2007

LEWIS, PIERCE, PACIFIC (portion lying north of a parallel line extending west from the northern boundary of Wahkaikum County to the sea) AND THURSTON COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
Power equipment operators:		
GROUP 1A	$ 33.21	12.75
GROUP 1AA	$ 33.78	12.75
GROUP 1AAA	$ 34.34	12.75
GROUP 1	$ 32.66	12.75
GROUP 2	$ 32.17	12.75
GROUP 3	$ 31.75	12.75
GROUP 4	$ 29.39	12.75

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) = $ .70
Zone 3 (Over 45 radius miles) - $1.00

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tons to 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-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

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be 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
H-2 Class "C" Suit - Base wage rate plus $ .25 per hour.
H-3 Class "B" Suit - Base wage rate plus $ .50 per hour.
H-4 Class "A" Suit - Base wage rate plus $ .75 per hour.

ENGI0701-002 01/01/2007

CLARK, COWLITZ, KLICKKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

POWER RQUIPMENT OPERATORS: ZONE 1

	Rates	Fringes
Power equipment operators:		
(See Footnote A)		
GROUP 1	$ 32.15	11.00
GROUP 1A	$ 33.76	11.00
GROUP 1B	$ 35.37	11.00
GROUP 2	$ 30.71	11.00
GROUP 3	$ 29.83	11.00
GROUP 4	$ 29.19	11.00
GROUP 5	$ 28.47	11.00
GROUP 6	$ 25.79	11.00

Zone Differential (add to Zone 1 rates):
Zone 2 - $1.50
Zone 3 - 3.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or projects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens "Blast Zone" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: CONCRETE: Batch Plant and/or Wet Mix Operator, three units or more; CRANE: Helicopter Operator, when used in erecting work; Whirley Operator, 90 ton and over; LATTICE BOOM CRANE: Operator 200 tons through 299 tons, and/or over 200 feet boom; HYDRAULIC CRANE: Hydraulic Crane Operator 90 tons through 199 tons with luffing or tower attachments; FLOATING EQUIPMENT: Floating Crane, 150 ton but less than 250 ton

GROUP 1A: HYDRAULIC CRANE: Hydraulic Operator, 200 tons and over (with luffing or tower attachment); LATTICE BOOM CRANE: Operator, 200 tons through 299 tons, with over 200 feet boom; FLOATING EQUIPMENT: Floating Crane 250 ton and over

GROUP 1B: LATTICE BOOM CRANE: Operator, 300 tons through 399 tons with over 200 feet boom; Operator 400 tons and over; FLOATING EQUIPMENT: Floating Crane 350 ton and over

GROUP 2: ASPHALT: Asphalt Plant Operator (any type); Roto Mill, pavement profiler, operator, 6 foot lateral cut and over; BLADE: Auto Grader or "Trimmer" (Grade Checker required); Blade Operator, Robotic; BULLDOZERS: Bulldozer operator over 120,000 lbs and above; Bulldozer operator, twin engine; Bulldozer Operator, tandem, quadnine, D10, D11, and similar type; Bulldozere Robotic Equipment (any type; CONCRETE: Batch Plant and/or Wet Mix Operator, one and two drum; Automatic Concrete Slip Form Paver Operator; Concrete Canal Line Operator; Concrete Profiler, Diamond Head; CRANE: Cableway Operator, 25 tons and over; HYDRAULIC CRANE: Hydraulic crane operator 90 tons through 199 tons (without luffing or tower attachment); TOWER/WHIRLEY OPERATOR: Tower Crane Operator; Whirley Operator, under 90 tons; LATTICE BOOM CRANE: 90 through 199 tons and/or 150 to 200 feet boom; CRUSHER: Crusher Plant Operator; FLOATING EQUIPMENT: Floating Clamshell, etc. operator, 3 cu. yds. and over; Floating Crane (derrick barge) Operator, 30 tons but less than 150 tons; LOADERS: Loader operator, 120,000 lbs. and above; REMOTE CONTROL: Remote controlled earth-moving equipment; RUBBER-TIRED SCRAPERS: Rubber-tired scraper operator, with tandem scrapers, multi-engine; SHOVEL, DRAGLINE, CLAMSHELL, SKOOPER OPERATOR: Shovel, Dragline, Clamshell, operator 5 cu. yds and over; TRENCHING MACHINE: Wheel Excavator, under 750 cu. yds. per hour (Grade Oiler required); Canal Trimmer (Grade Oiler required); Wheel Excavator, over 750 cu. yds. per hour; Band Wagon (in conjunction with wheel excavator); UNDERWATER EQUIPMENT: Underwater Equipment Operator, remote or otherwise; HYDRAULIC HOES-EXCAVATOR: Excavator over 130,000 lbs.; HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (with luffing or tower attachment);

GROUP 3: BULLDOZERS: Bulldozer operator, over 70,000 lbs. up to and including 120,000 lbs.; HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (without luffing or tower attachment); LATTICE BOOM CRANES: Lattice Boom Crane-50 through 89 tons (and less than 150 feet boom); FORKLIFT: Rock Hound Operator; HYDRAULIC HOES-EXCAVATOR: excavator over 80,000 lbs. through 130,000 lbs.; LOADERS: Loader operator 60,000 and less than 120,000; RUBBER-TIRED SCRAPERS: Scraper Operator, with tandem scrapers; Self-loading, paddle wheel, auger type, finish and/or 2 or more units; SHOVEL, DRAGLINE, CLAMSHELL,SKOOPER OPERATOR: Shovel, Dragline, Clamshell operators 3 cu. yds. but less than 5 cu yds.

GROUP 4: ASPHALT: Screed Operator; Asphalt Paver operator (screedman required); BLADE: Blade operator; Blade operator, finish; Blade operator, externally controlled by electronic, mechanical hydraulic means; Blade operator, multi-engine; BULLDOZERS: Bulldozer Operator over 20,000 lbs and more than 100 horse up to 70,000 lbs; Drill Cat Operator; Side-boom Operator; Cable-Plow Operator (any type); CLEARING: Log Skidders; Chippers; Incinerator; Stump Splitter (loader mounted or similar type); Stump Grinder (loader mounted or similar type; Tub Grinder; Land Clearing Machine (Track mounted forestry mowing & grinding machine); Hydro Axe (loader mounted or similar type); COMPACTORS SELF-PROPELLED: Compactor Operator, with blade; Compactor Operator, multi-engine; Compactor Operator, robotic; CONCRETE: Mixer Mobile Operator; Screed Operator; Concrete Cooling Machine Operator; Concrete Paving Road Mixer; Concrete Breaker; Reinforced Tank Banding Machine (K-17 or similar types); Laser Screed; CRANE: Chicago boom and similar types; Lift Slab Machine Operator; Boom type lifting device, 5 ton capacity or less; Hoist Operator, two (2) drum; Hoist Operator, three (3) or more drums; Derrick Operator, under 100 ton; Hoist Operator, stiff leg, guy derrick or similar type, 50 ton and over; Cableway Operator up to twenty (25) ton; Bridge Crane Operator, Locomotive, Gantry, Overhead; Cherry Picker or similar type crane; Carry Deck Operator; Hydraulic Crane Operator, under 50 tons; LATTICE BOOM CRANE OPERATOR: Lattice Boom Crane Operator, under 50 tons; CRUSHER: Generator Operator; Diesel-Electric Engineer; Grizzley Operator; Drill Doctor; Boring Machine Operator; Driller-Percussion, Diamond, Core, Cable, Rotary and similar type; Cat Drill (John Henry); Directional Drill Operator over 20,000 lbs pullback; FLOATING EQUIPMENT: Diesel-electric Engineer; Jack Operator, elevating barges, Barge Operator, self-unloading; Piledriver Operator (not crane type) (Deckhand required); Floating Clamshelll, etc. Operator, under 3 cu. yds. (Fireman or Diesel-Electric Engineer required); Floating Crane (derrick barge) Operator, less than 30 tons; GENERATORS: Generator Operator; Diesel-electric Engineer; GUARDRAIL EQUIPMENT: Guardrail Punch Operator (all types); Guardrail Auger Operator (all types); Combination Guardrail machines, i.e., punch auger, etc.; HEATING PLANT: Surface Heater and Planer Operator; HYDRAULIC HOES EXCAVATOR: Robotic Hydraulic backhoe operator, track and wheel type up to and including 20,0000 lbs. with any or all attachments; Excavator Operator over 20,000 lbs through 80,000 lbs.; LOADERS: Belt Loaders, Kolman and Ko Cal types; Loaders Operator, front end and overhead, 25,000 lbs and less than 60,000 lbs; Elevating Grader Operator by Tractor operator, Sierra, Euclid or similar types; PILEDRIVERS: Hammer

Operator; Piledriver Operator (not crane type); PIPELINE, SEWER WATER: Pipe Cleaning Machine Operator; Pipe Doping Machine Operator; Pipe Bending Machine Operator; Pipe Wrapping Machine Operator; Boring Machine Operator; Back Filling Machine Operator; REMOTE CONTROL: Concrete Cleaning Decontamination Machine Operator; Ultra High Pressure Water Jet Cutting Tool System Operator/Mechanic; Vacuum Blasting Machine Operator/mechanic; REPAIRMEN, HEAVY DUTY: Diesel Electric Engineer (Plant or Floating; Bolt Threading Machine operator; Drill Doctor (Bit Grinder); H.D. Mechanic; Machine Tool Operator; RUBBER-TIRED SCRAPERS: Rubber-tired Scraper Operator, single engine, single scraper; Self-loading, paddle wheel, auger type under 15 cu. yds.; Rubber-tired Scraper Operator, twin engine; Rubber-tired Scraper Operator, with push- pull attachments; Self Loading, paddle wheel, auger type 15 cu. yds. and over, single engine; Water pulls, water wagons; SHOVEL, DRAGLINE, CLAMSHELL, SKOOPER OPERATOR: Diesel Electric Engineer; Stationary Drag Scraper Operator; Shovel, Dragline, Clamshell, Operator under 3 cy yds.; Grade-all Operator; SURFACE (BASE) MATERIAL: Blade mounted spreaders, Ulrich and similar types; TRACTOR-RUBBERED TIRED: Tractor operator, rubber-tired, over 50 hp flywheel; Tractor operator, with boom attachment; Rubber-tired dozers and pushers (Michigan, Cat, Hough type); Skip Loader, Drag Box; TRENCHING MACHINE: Trenching Machine operator, digging capacity over 3 ft depth; Back filling machine operator; TUNNEL: Mucking machine operator

GROUP 5: ASPHALT: Extrusion Machine Operator; Roller Operator (any asphalt mix); Asphalt Burner and Reconditioner Operator (any type); Roto-Mill, pavement profiler, ground man; BULLDOZERS: Bulldozer operator, 20,000 lbs. or less or 100 horse or less; COMPRESSORS: Compressor Operator (any power), over 1,250 cu. ft. total capacity; COMPACTORS: Compactor Operator, including vibratory; Wagner Pactor Operator or similar type (without blade); CONCRETE: Combination mixer and Compressor Operator, gunite work; Concrete Batch Plant Quality Control Operator; Beltcrete Operator; Pumpcrete Operator (any type); Pavement Grinder and/or Grooving Machine Operator (riding type); Cement Pump Operator, Fuller-Kenyon and similar; Concrete Pump Operator; Grouting Machine Operator; Concrete mixer operator, single drum, under (5) bag capacity; Cast in place pipe laying machine; maginnis Internal Full slab vibrator operator; Concrete finishing mahine operator, Clary, Johnson, Bidwell, Burgess Bridge deck or similar type; Curb Machine Operator, mechanical Berm, Curb and/or Curb and Gutter; Concrete Joint Machine Operator; Concrete Planer Operator; Tower Mobile Operator; Power Jumbo Operator setting slip forms in tunnels; Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Concrete Paving Machine Operator; Concrete Finishing Machine Operator; Concrete Spreader Operator; CRANE: Helicopter Hoist Operator; Hoist Operator, single drum; Elevator Operator; A-frame Truck Operator, Double drum; Boom Truck Operator; HYDRAULIC CRANE OPERATOR:

Hydraulic Boom Truck, Pittman; DRILLING: Churn Drill and Earth Boring Machine Operator; Vacuum Truck; Directional Drill Operator over 20,000 lbs pullback; FLOATING EQUIPMENT: Fireman; FORKLIFT: Fork Lift, over 10 ton and/or robotic; HYDRAULIC HOES EXCAVATORS: Hydraulic Backhoe Operator, wheel type (Ford, John Deere, Case type); Hydraulic Backhoe Operator track type up to and including 20,000 lbs.; LOADERS: Loaders, rubber- tired type, less than 25,000 lbs; Elevating Grader Operator, Tractor Towed requiring Operator or Grader; Elevating loader operator, Athey and similar types; OILERS: Service oiler (Greaser); PIPELINE-SEWER WATER: Hydra hammer or similar types; Pavement Breaker Operator; PUMPS: Pump Operator, more than 5 (any size); Pot Rammer Operator; RAILROAD EQUIPMENT: Locomotive Operator, under 40 tons; Ballast Regulator Operator; Ballast Tamper Multi-Purpose Operator; Track Liner Operator; Tie Spacer Operator; Shuttle Car Operator; Locomotive Operator, 40 tons and over; MATERIAL HAULRS: Cat wagon DJBs Volvo similar types; Conveyored material hauler; SURFACING (BASE) MATERIAL: Rock Spreaders, self-propelled; Pulva-mixer or similar types; Chip Spreading machine operator; Lime spreading operator, construction job siter; SWEEPERS: Sweeper operator (Wayne type) self-propelled construction job site; TRACTOR-RUBBER TIRED: Tractor operator, rubber-tired, 50 hp flywheel and under; Trenching machine operator, maximum digging capacity 3 ft depth; TUNNEL: Dinkey

GROUP 6: ASPHALT: Plant Oiler; Plant Fireman; Pugmill Operator (any type); Truck mounted asphalt spreader, with screed; COMPRESSORS: Compressor Operator (any power), under 1,250 cu. ft. total capacity; CONCRETE: Plant Oiler, Assistant Conveyor Operator; Conveyor Operator; Mixer Box Operator (C.T.B., dry batch, etc.); Cement Hog Operator; Concrete Saw Operator; Concrete Curing Machine Operator (riding type); Wire Mat or Brooming Machine Operator; CRANE: Oiler; Fireman, all equipment; Truck Crane Oiler Driver; A-frame Truck Operator, single drum; Tugger or Coffin Type Hoist Operator; CRUSHER: Crusher Oiler; Crusher Feederman; CRUSHER: Crusher oiler; Crusher feederman; DRILLING: Drill Tender; Auger Oiler; FLOATING EQUIPMENT: Deckhand; Boatman; FORKLIFT: Self-propelled Scaffolding Operator, construction job site (excluding working platform); Fork Lift or Lumber Stacker Operator, construction job site; Ross Carrier Operator, construction job site; Lull Hi-Lift Operator or Similar Type; GUARDRAIL EQUIPMENT: Oiler; Auger Oiler; Oiler, combination guardrail machines; Guardrail Punch Oiler; HEATING PLANT: Temporary Heating Plant Operator; LOADERS: Bobcat, skid steer (less than 1 cu yd.); Bucket Elevator Loader Operator, BarberGreene and similar types; OILERS: Oiler; Guardrail Punch Oiler; Truck Crane Oiler-Driver; Auger Oiler; Grade Oiler, required to check grade; Grade Checker; Rigger; PIPELINE-SEWER WATER: Tar Pot Fireman; Tar Pot Fireman (power agitated); PUMPS: Pump Operator (any power); Hydrostatic Pump Operator; RAILROAD EQUIPMENT: Brakeman; Oiler; Switchman; Motorman; Ballast Jack Tamper Operator;

SHOVEL, DRAGLINE, CLAMSHELL, SKOOPER, ETC. OPERATOR: Oiler, Grade Oiler (required to check grade); Grade Checker; Fireman; SWEEPER: Broom operator, self propelled, construction job site; SURFACING (BASE) MATERIAL: Roller Operator, grading of base rock (not asphalt); Tamping Machine operator, mechanical, self-propelled; Hydrographic Seeder Machine Operator; TRENCHING MACHINE: Oiler; Grade Oiler; TUNNEL: Conveyor operator; Air filtration equipment operator

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ENGI0701-003 01/01/2007

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

DREDGING:

	Rates	Fringes
Dredging:		
ZONE A		
ASSISTANT ENGINEER	$ 33.58	10.80
ASSISTANT MATE	$ 29.57	10.80
LEVERMAN, DIPPER, FLOATING CLAMSHELL	$ 35.97	10.80
LEVERMAN, HYDRAULIC	$ 35.97	10.80
TENDERMAN	$ 32.49	10.80
ZONE B		
ASSISTANT ENGINEER	$ 35.58	10.80
ASSISTANT MATE	$ 31.57	10.80
LEVERMAN, DIPPER, FLOATING CLAMSHELL	$ 37.97	10.80
LEVERMAN, HYDRAULIC	$ 37.97	10.80
TENDERMAN	$ 34.49	11.00
ZONE C		
ASSISTANT ENGINEER	$ 36.58	10.80
ASSISTANT MATE	$ 32.57	10.80
LEVERMAN, DIPPER, FLOATING CLAMSHELL	$ 38.97	10.80
LEVERMAN, HYDRAULIC	$ 38.97	10.80
TENDERMAN	$ 35.49	10.80

ZONE DESCRIPTION FOR DREDGING:

ZONE A - All jobs or projects located within 30 road miles of Portland City Hall.
ZONE B - Over 30-50 road miles from Portland City Hall.
ZONE C - Over 50 road miles from Portland City Hall.

*All jobs or projects shall be computed from the city hall by the shortest route to the geographical center of the project.

IRON0014-005 07/01/2007

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE, STEVENS, WALLA WALLA AND WHITMAN COUNTIES

	Rates	Fringes
IRONWORKER	$ 28.22	15.52

IRON0029-002 07/01/2007

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKAIKUM COUNTIES

	Rates	Fringes
IRONWORKER	$ 30.25	15.52

IRON0086-002 07/01/2007

YAKIMA, KITTITAS AND CHELAN COUNTIES

	Rates	Fringes
IRONWORKER	$ 29.00	15.52

IRON0086-004 07/01/2007

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.40	15.52

LABO0001-002 06/01/2007

ZONE 1:

	Rates	Fringes
Laborers:		
CALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (NORTH OF STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES		
GROUP 1	$ 20.25	8.26
GROUP 2	$ 22.81	8.26
GROUP 3	$ 28.04	8.26
GROUP 4	$ 28.55	8.26
GROUP 5	$ 29.00	8.26
CHELAN, DOUGLAS (WEST OF THE 120TH MERIDIAN), KITTITAS AND YAKIMA COUNTIES		
GROUP 1	$ 16.58	8.26
GROUP 2	$ 19.00	8.26
GROUP 3	$ 20.80	8.26
GROUP 4	$ 21.30	8.26
GROUP 5	$ 21.67	8.26

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $ .70
ZONE 3 - $1.00

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

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

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

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Mortarman and Hodcarrier; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Powderman; Re-Timberman; Hazardous Waste Worker (Level A).

LABO0238-004 06/01/2007

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA AND WHITMAN COUNTIES

	Rates	Fringes
Laborers:		
ZONE 1:		
GROUP 1	$ 19.71	7.45
GROUP 2	$ 21.81	7.45
GROUP 3	$ 22.08	7.45
GROUP 4	$ 22.35	7.45
GROUP 5	$ 22.63	7.45
GROUP 6	$ 24.00	7.45

Zone Differential (Add to Zone 1 rate): $2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.
Zone 2: 45 radius miles and over from the main post office.

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer; Scaleman; Traffic Control Maintenance Laborer (to include erection and maintenance of barricades, signs and relief of flagperson); Window Washer/Cleaner (detail cleanup, such as, but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezcrete or similar machine,6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class "A" (to include all bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

GROUP 3: Aspahlt Raker; Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, Paving; Grade Checker using level; Hazardous Waste Worker, Level C (uses a chemical "splash suit" and air purifying respirator); Jackhammer Operator; Miner, Class "B" (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi- plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow (power driven)

GROUP 4: Air and Hydraulic Track Drill; Brush Machine (to include horizontal construction joint cleanup brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when laborers working on free standing concrete stacks for smoke or fume control above 40 feet high); Gunite (to include operation of machine and nozzle); Hazardous Waste Worker, Level B (uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Laser Beam Operator (to include grade checker and elevation control); Miner, Class C (to include miner, nozzleman for concrete, laser beam operator and rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power propelled, sandblast nozzle); Pavement Breaker (90 lbs. and over); Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer); Pipewrapper; Plasterer Tender; Vibrators (all)

GROUP 5 - Drills with Dual Masts; Hazardous Waste Worker, Level A (utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line); Miner Class "D", (to include raise and shaft miner, laser beam operator on raises and shafts)

GROUP 6 - Powderman

LABO0238-006 06/01/2007

COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA, WHITMAN

	Rates	Fringes
Hod Carrier	$ 23.40	7.45

LABO0335-001 06/01/2007

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

	Rates	Fringes
Laborers:		
ZONE 1:		
GROUP 1	$ 25.94	8.25
GROUP 2	$ 26.54	8.25
GROUP 3	$ 26.98	8.25
GROUP 4	$ 27.36	8.25
GROUP 5	$ 23.44	8.25
GROUP 6	$ 21.02	8.25
GROUP 7	$ 17.82	8.25

Zone Differential (Add to Zone 1 rates):
Zone 2 $ 0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 2.75

BASE POINTS: GOLDENDALE, LONGVIEW, AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city all.
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.

LABORERS CLASSIFICATIONS

GROUP 1: 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; Guard Rail, Median Rail Reference Post, Guide Post, Right of Way Marker; Fine Graders; Fire Watch; Form Strippers (not swinging stages); General Laborers; Hazardous Waste Worker; Leverman or Aggregate Spreader (Flaherty and similar types); Loading Spotters; Material Yard Man (including electrical); Pittsburgh Chipper Operator or Similar Types; Railroad Track Laborers; Ribbon Setters (including steel forms); Rip Rap Man (hand placed); Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers; Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring; Timber Faller and Bucker (hand labor); Toolroom Man (at job site); Tunnel Bullgang (above ground); Weight-Man- Crusher (aggregate when used)

GROUP 2: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunite Nozzleman Tender; Gunite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 3: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunite Nozzleman; High Scalers, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Pwdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 4: 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

GROUP 5: Traffic Flaggers

GROUP 6: Fence Builders

GROUP 7: Landscaping or Planting Laborers

LABO0335-010 06/01/2007

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

	Rates	Fringes
Hod Carrier	$ 27.96	8.25

PAIN0005-002 06/01/2006

STATEWIDE EXCEPT CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
STRIPERS	$ 24.48	10.42

PAIN0005-004 07/01/2006

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
PAINTER	$ 19.46	6.82

PAIN0005-006 07/01/2006

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE); CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
Painters:		
Application of Cold Tar Products, Epoxies, Polyurethanes, Acids, Radiation Resistant Material, Water and Sandblasting, Bridges, Towers, Tanks, Stacks, Steeples	$ 20.84	6.88
Over 30'/Swing Stage Work	$ 21.54	6.88
Brush, Roller, Striping, Steam-cleaning and Spray	$ 15.09	5.68
Lead Abatement, Asbestos Abatement	$ 20.84	6.88
TV Radio, Electrical Transmission Towers	$ 21.59	6.88
Over 30'/Swing Stage Work	$ 22.29	6.88

*$.70 shall be paid over and above the basic wage rates listed for work on swing stages and high work of over 30 feet.

PAIN0055-002 04/01/2007

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
Brush & Roller	$ 19.71	6.83
High work - All work 60 ft. or higher	$ 20.46	6.83
Spray and Sandblasting	$ 20.31	6.83

PAIN0055-007 06/01/2007

CLARK, COWLITZ, KLICKITAT, SKAMANIA and WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
HIGHWAY & PARKING LOT STRIPER	$ 28.27	8.27

PLAS0072-004 06/01/2006

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES

	Rates	Fringes
Cement Mason/Concrete Finisher		
ZONE 1:	$ 23.68	7.78

Zone Differential (Add to Zone 1 rate): Zone 2 - $2.00

BASE POINTS: Spokane, Pasco, Moses Lake, Lewiston
Zone 1: 0 - 45 radius miles from the main post office
Zone 2: Over 45 radius miles from the main post office

PLAS0528-001 06/01/2007

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

	Rates	Fringes
Cement Masons:		
CEMENT MASON	$ 32.69	11.89
COMPOSITION, COLOR MASTIC, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE	$ 33.19	11.89

PLAS0555-002 06/01/2007

CLARK, KLICKITAT AND SKAMANIA COUNTIES

ZONE 1:

	Rates	Fringes
Cement Masons:		
CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD	$ 26.61	14.83
CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD	$ 26.10	14.83
CEMENT MASONS	$ 25.59	14.83
COMPOSITION WORKERS AND POWER MACHINERY OPERATORS	$ 26.10	14.83

Zone Differential (Add To Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE DALLES, VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall
ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.
ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
ZONE 5: More than 80 miles from the respective city hall

PLUM0032-002 01/01/2007

CLALLAM, KING AND JEFFERSON COUNTIES

	Rates	Fringes
Plumbers and Pipefitters	$ 38.08	17.31

PLUM0032-003 01/01/2007

CHELAN, KITTITAS (NORTHERN TIP), DOUGLAS (NORTH), AND OKANOGAN (NORTH) COUNTIES

	Rates	Fringes
Plumbers and Pipefitters	$ 25.88	14.19

PLUM0044-003 12/01/2006

ADAMS (NORTHERN PART), ASOTIN (CLARKSTON ONLY), FERRY (EASTERN PART), LINCOLN, PEND ORIELLE, STEVENS, SPOKANE, AND WHITMAN COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
ADAMS (NORTHERN PART), ASOTIN (CLARKSTON ONLY), FERRY (EASTERN PART), LINCOLN, PEND ORIELLE AND STEVENS AND SPOKANE COUNTIES	$ 29.14	12.81
WHITMAN COUNTY	$ 35.24	12.81

*** PLUM0082-001 06/01/2007**

CLARK (NORTHERN TIP INCLUDING WOODLAND), COWLITZ, GRAYS HARBOR, LEWIS, MASON (EXCLUDING NE SECTION), PACIFIC, PIERCE SKAMANIA, THURSTON AND WAHKIAKUM COUNTIES

	Rates	Fringes
Plumbers and Pipefitters	$ **35.55**	15.32

*** PLUM0265-003 06/01/2007**

ISLAND, SKAGIT, SNOHOMISH,SAN JUAN AND WHATCOM COUNTIES

	Rates	Fringes
Plumbers and Pipefitters	$ **35.55**	15.32

PLUM0290-003 4/01/2007

CLARK (ALL EXCLUDING NORTHERN TIP INCLUDING CITY OF WOODLAND)

	Rates	Fringes
Plumbers and Pipefitters	$ 34.99	18.23

PLUM0598-005 06/01/2006

ADAMS (SOUTHERN PART), ASOTIN (EXCLUDING THE CITY OF CLARKSTON), BENTON, COLUMBIA, DOUGLAS (EASTERN HALF), FERRY (WESTERN PART), FRANKLIN, GARFIELD, GRANT, KITTITAS (ALL BUT NORTHERN TIP), KLICKITAT, LINCOLN (WESTERN PART), OKANOGAN (EASTERN), WALLA WALLA AND YAKIMA COUNTIES

	Rates	Fringes
PLUMBER	$ 33.69	17.96

*** PLUM0631-001 06/01/2007**

MASON (NE SECTION), AND KITSAP COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
All new construction, additions, and remodeling of commercial building projects such as: cocktail lounges and taverns, professional buildings, medical clinics, retail stores, hotels and motels, restaurants and fast food types, gasoline service stations, and car washes where the plumbing and mechanical cost of the project is less than $100,000	$ **27.39**	11.18
All other work where the plumbing and mechanical cost of the project is $100,000 and over	$ **34.90**	15.32

TEAM0037-002 11/01/2006

CLARK, COWLITZ, KLICKITAT, PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE 1		
GROUP 1	$ 23.05	11.00
GROUP 2	$ 23.17	11.00
GROUP 3	$ 23.30	11.00
GROUP 4	$ 23.56	11.00
GROUP 5	$ 23.78	11.00
GROUP 6	$ 23.94	11.00
GROUP 7	$ 24.14	11.00

Zone Differential (Add to Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lift truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts (all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman, Wash Rack, Steam Cleaner or combinations; Team Driver; Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane; Challenger; Dumpsters or similar equipment all sizes; Dump Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer or doubles transporting equipment or wet or dry materials; Lumber Carrier, Driver-Straddle Carrier (used in loading, unloading and transporting of materials on job site); Oil Distributor Driver or Leverman; Transit mix and wet or dry mix trucks: over 5 cu. yds. and including 7 cu. yds.; Vacuum Trucks; Water truck/Wagons (rated capacity) over 3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 10 cu. yds. and including 30 cu. yds. includes Articulated Dump Trucks; Self-Propelled Street Sweeper; Transit mix and wet or dry mix truck: over 7 cu yds. and including 11 cu yds.; Truck Mechanic-Welder-Body Repairman; Utility and Clean-up Truck; Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom dumps, including Semi-Trucks and Trains or combinations thereof: over 30 cu. yds. and including 50 cu. yds. includes Articulated Dump Trucks; Fire Guard; Transit Mix and Wet or Dry Mix Trucks, over 11 cu. yds. and including 15 cu. yds.; Water Wagon (rated capacity) over 10,000 gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 50 cu. yds. and including 60 cu. yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch concrete Mix Trucks; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains of combinations thereof: over 60 cu. yds. and including 80 cu. yds., and includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

TEAM0174-001 06/01/2006

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE A:		
GROUP 1:	$ 27.62	11.98
GROUP 2:	$ 27.06	11.98
GROUP 3:	$ 24.66	11.98
GROUP 4:	$ 20.41	11.98
GROUP 5:	$ 27.40	11.98

ZONE B (25-45 miles from center of listed cities*): Add $.70 per hour to Zone A rates.
ZONE C (over 45 miles from center of listed cities*): Add $1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM	CENTRALIA	RAYMOND	OLYMPIA
EVERETT	SHELTON	ANACORTES	BELLEVUE
SEATTLE	PORT ANGELES	MT. VERNON	KENT
TACOMA	PORT TOWNSEND	ABERDEEN	BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - "A-frame or Hydralift" trucks and Boom trucks or similar equipment when "A" frame or "Hydralift" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series, Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards $.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra, Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired)(when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by $2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:
LEVEL C: +$.25 per hour - This level uses an air purifying respirator or additional protective clothing.
LEVEL B: +$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."
LEVEL A: +$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0760-002 06/01/2007

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
Truck drivers: (ANYONE WORKING ON HAZMAT JOBS SEE FOOTNOTE A BELOW)		
ZONE 1:		
GROUP 1	$ 19.27	10.70
GROUP 2	$ 21.54	10.70
GROUP 3	$ 22.04	10.70
GROUP 4	$ 22.37	10.70
GROUP 5	$ 22.48	10.70
GROUP 6	$ 22.65	10.70
GROUP 7	$ 23.18	10.70
GROUP 8	$ 23.51	10.70

Zone Differential (Add to Zone 1 rate: Zone 2 - $2.00)

BASE POINTS: Spokane, Moses Lake, Pasco, Lewiston
Zone 1: 0-45 radius miles from the main post office.
Zone 2: Outside 45 radius miles from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraullic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self- loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi- end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable 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 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

Footnote A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C-D: - $.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - $1.00 PER HOUR (Uses supplied air is conjunction with a chemical splash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

NOTE:
Trucks Pulling Equipment Trailers: shall receive $.15/hour over applicable truck rate

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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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) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write 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 the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write 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 by 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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

State of Washington
DEPARTMENT OF LABOR AND INDUSTRIES
Prevailing Wage Section - Telephone (360) 902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage Rates For Public Works Contracts

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, workers' wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements is provided on the Benefit Code Key.

KING COUNTY

Effective 03-03-07

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Classification	PREVAILING WAGE	(See Benefit Code Key) Over Time Code	Holiday Code	Note Code
ASBESTOS ABATEMENT WORKERS				
JOURNEY LEVEL	$34.36	1M	5D	
BOILERMAKERS				
JOURNEY LEVEL	$33.32	1		
BRICK AND MARBLE MASONS				
JOURNEY LEVEL	$42.47	1M	5A	
CABINET MAKERS (IN SHOP)				
JOURNEY LEVEL	$16.67	1		
CARPENTERS				
ACOUSTICAL WORKER	$41.43	1M	5D	
BRIDGE, DOCK AND WARF CARPENTERS	$41.33	1M	5D	
CARPENTER	$41.33	1M	5D	
CREOSOTED MATERIAL	$41.37	1M	5D	
DRYWALL APPLICATOR	$41.31	1M	5D	
FLOOR FINISHER	$41.40	1M	5D	
FLOOR LAYER	$41.40	1M	5D	
FLOOR SANDER	$41.40	1M	5D	
MILLWRIGHT AND MACHINE ERECTORS	$42.27	1M	5D	
PILEDRIVERS, DRIVING, PULLING, PLACING COLLARS AND WELDING	$41.47	1M	5D	
SAWFILER	$41.40	1M	5D	
SHINGLER	$41.40	1M	5D	
STATIONARY POWER SAW OPERATOR	$41.40	1M	5D	
STATIONARY WOODWORKING TOOLS	$41.40	1M	5D	
CEMENT MASONS				
JOURNEY LEVEL	$42.26	1M	5D	
DIVERS & TENDERS				
DIVER	$85.75	1M	5D	8A
DIVER TENDER	$44.22	1M	5D	
DREDGE WORKERS				
ASSISTANT ENGINEER	$42.02	1T	5D	8L
ASSISTANT MATE (DECKHAND)	$41.51	1T	5D	8L
BOATMEN	$42.02	1T	5D	8L
ENGINEER WELDER	$42.07	1T	5D	8L
LEVERMAN, HYDRAULIC	$43.64	1T	5D	8L
MAINTENANCE	$41.51	1T	5D	8L
MATES	$42.02	1T	5D	8L
OILER	$41.64	1T	5D	8L
DRYWALL TAPERS				
JOURNEY LEVEL	$41.14	1E	5P	
ELECTRICIANS - INSIDE				
CABLE SPLICER	$52.30	1D	5A	
CABLE SPLICER (TUNNEL)	$56.21	1D	5A	
CERTIFIED WELDER	$50.53	1D	5A	
CERTIFIED WELDER (TUNNEL)	$54.26	1D	5A	
CONSTRUCTION STOCK PERSON	$27.32	1D	5A	
JOURNEY LEVEL	$48.75	1D	5A	
JOURNEY LEVEL (TUNNEL)	$52.30	1D	5A	
ELECTRICIANS - POWERLINE CONSTRUCTION				
CABLE SPLICER	$55.40	4A	5A	
CERTIFIED LINE WELDER	$49.64	4A	5A	
GROUNDPERSON	$35.92	4A	5A	
HEAD GROUNDPERSON	$37.88	4A	5A	

KING COUNTY

Effective 03-03-07

Classification	PREVAILING WAGE	(See Benefit Code Key) Over Time Code	Holiday Code	Note Code
HEAVY LINE EQUIPMENT OPERATOR	$49.64	4A	5A	
JACKHAMMER OPERATOR	$37.88	4A	5A	
JOURNEY LEVEL LINEPERSON	$49.64	4A	5A	
LINE EQUIPMENT OPERATOR	$42.26	4A	5A	
POLE SPRAYER	$49.64	4A	5A	
POWDERPERSON	$37.88	4A	5A	
ELECTRONIC TECHNICIANS				
ELECTRONIC TECHNICIANS JOURNEY LEVEL	$31.00	1		
ELEVATOR CONSTRUCTORS				
MECHANIC	$57.88	4A	6Q	
MECHANIC IN CHARGE	$63.45	4A	6Q	
FENCE ERECTORS				
FENCE ERECTOR	$18.71	1		
FENCE LABORER	$12.77	1		
FLAGGERS				
JOURNEY LEVEL	$29.68	1M	5D	
GLAZIERS				
JOURNEY LEVEL	$42.41	1H	5G	
HEAT & FROST INSULATORS AND ASBESTOS WORKERS				
MECHANIC	$45.13	1S	5J	
HOD CARRIERS & MASON TENDERS				
JOURNEY LEVEL	$34.84	1M	5D	
INLAND BOATMEN				
CAPTAIN	$38.04	1K	5B	
COOK	$31.90	1K	5B	
DECKHAND	$31.59	1K	5B	
ENGINEER/DECKHAND	$34.37	1K	5B	
MATE, LAUNCH OPERATOR	$36.02	1K	5B	
INSULATION APPLICATORS				
JOURNEY LEVEL	$41.27	1M	5D	
IRONWORKERS				
JOURNEY LEVEL	$46.25	1O	5A	
LABORERS				
ASPHALT RAKER	$34.84	1M	5D	
BALLAST REGULATOR MACHINE	$34.36	1M	5D	
BATCH WEIGHMAN	$29.68	1M	5D	
BRUSH CUTTER	$34.36	1M	5D	
BRUSH HOG FEEDER	$34.36	1M	5D	
BURNERS	$34.36	1M	5D	
CARPENTER TENDER	$34.36	1M	5D	
CASSION WORKER	$35.20	1M	5D	
CEMENT DUMPER/PAVING	$34.84	1M	5D	
CEMENT FINISHER TENDER	$34.36	1M	5D	
CHANGE-HOUSE MAN OR DRY SHACKMAN	$34.36	1M	5D	
CHIPPING GUN (OVER 30 LBS)	$34.84	1M	5D	
CHIPPING GUN (UNDER 30 LBS)	$34.36	1M	5D	
CHOKER SETTER	$34.36	1M	5D	
CHUCK TENDER	$34.36	1M	5D	
CLEAN-UP LABORER	$34.36	1M	5D	
CONCRETE DUMPER/CHUTE OPERATOR	$34.84	1M	5D	
CONCRETE FORM STRIPPER	$34.36	1M	5D	
CONCRETE SAW OPERATOR	$34.84	1M	5D	
CRUSHER FEEDER	$29.68	1M	5D	
CURING LABORER	$34.36	1M	5D	
DEMOLITION, WRECKING & MOVING (INCLUDING CHARRED	$34.36	1M	5D	
DITCH DIGGER	$34.36	1M	5D	
DIVER	$35.20	1M	5D	
DRILL OPERATOR (HYDRAULIC, DIAMOND)	$34.84	1M	5D	
DRILL OPERATOR, AIRTRAC	$35.20	1M	5D	

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Classification	PREVAILING WAGE	Over Time Code	Holiday Code	Note Code
		(See Benefit Code Key)		
DUMPMAN	$34.36	1M	5D	
EPOXY TECHNICIAN	$34.36	1M	5D	
EROSION CONTROL WORKER	$34.36	1M	5D	
FALLER/BUCKER, CHAIN SAW	$34.84	1M	5D	
FINAL DETAIL CLEANUP (i.e., dusting, vacuuming, window cleaning; NOT construction debris cleanup)	$27.36	1M	5D	
FINE GRADERS	$34.36	1M	5D	
FIRE WATCH	$29.68	1M	5D	
FORM SETTER	$34.36	1M	5D	
GABION BASKET BUILDER	$34.36	1M	5D	
GENERAL LABORER	$34.36	1M	5D	
GRADE CHECKER & TRANSIT PERSON	$34.84	1M	5D	
GRINDERS	$34.36	1M	5D	
GROUT MACHINE TENDER	$34.36	1M	5D	
GUARDRAIL ERECTOR	$34.36	1M	5D	
HAZARDOUS WASTE WORKER LEVEL A	$35.20	1M	5D	
HAZARDOUS WASTE WORKER LEVEL B	$34.84	1M	5D	
HAZARDOUS WASTE WORKER LEVEL C	$34.36	1M	5D	
HIGH SCALER	$35.20	1M	5D	
HOD CARRIER/MORTARMAN	$34.84	1M	5D	
JACKHAMMER	$34.84	1M	5D	
LASER BEAM OPERATOR	$34.84	1M	5D	
MANHOLE BUILDER-MUDMAN	$34.84	1M	5D	
MATERIAL YARDMAN	$34.36	1M	5D	
MINER	$35.20	1M	5D	
NOZZLEMAN, CONCRETE PUMP, GREEN CUTTER WHEN USING HIGH PRESSURE AIR & WATER ON CONCRETE & ROCK, SANDBLAST, GUNITE, SHOTCRETE, WATER BLASTER	$34.84	1M	5D	
PAVEMENT BREAKER	$34.84	1M	5D	
PILOT CAR	$29.68	1M	5D	
PIPE POT TENDER	$34.84	1M	5D	
PIPE RELINER (NOT INSERT TYPE)	$34.84	1M	5D	
PIPELAYER & CAULKER	$34.84	1M	5D	
PIPELAYER & CAULKER (LEAD)	$35.20	1M	5D	
PIPEWRAPPER	$34.84	1M	5D	
POT TENDER	$34.36	1M	5D	
POWDERMAN	$35.20	1M	5D	
POWDERMAN HELPER	$34.36	1M	5D	
POWERJACKS	$34.84	1M	5D	
RAILROAD SPIKE PULLER (POWER)	$34.84	1M	5D	
RE-TIMBERMAN	$35.20	1M	5D	
RIPRAP MAN	$34.36	1M	5D	
RODDER	$34.84	1M	5D	
SCAFFOLD ERECTOR	$34.36	1M	5D	
SCALE PERSON	$34.36	1M	5D	
SIGNALMAN	$34.36	1M	5D	
SLOPER (OVER 20")	$34.84	1M	5D	
SLOPER SPRAYMAN	$34.36	1M	5D	
SPREADER (CLARY POWER OR SIMILAR TYPES)	$34.84	1M	5D	
SPREADER (CONCRETE)	$34.84	1M	5D	
STAKE HOPPER	$34.36	1M	5D	
STOCKPILER	$34.36	1M	5D	
TAMPER & SIMILAR ELECTRIC, AIR & GAS	$34.84	1M	5D	
TAMPER (MULTIPLE & SELF PROPELLED)	$34.84	1M	5D	
TOOLROOM MAN (AT JOB SITE)	$34.36	1M	5D	
TOPPER-TAILER	$34.36	1M	5D	
TRACK LABORER	$34.36	1M	5D	
TRACK LINER (POWER)	$34.84	1M	5D	

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TRUCK SPOTTER	$34.36	1M	5D	
TUGGER OPERATOR	$34.84	1M	5D	
VIBRATING SCREED (AIR, GAS, OR ELECTRIC)	$34.36	1M	5D	
VIBRATOR	$34.84	1M	5D	
VINYL SEAMER	$34.36	1M	5D	
WELDER	$34.36	1M	5D	
WELL-POINT LABORER	$34.84	1M	5D	
LANDSCAPE CONSTRUCTION				
IRRIGATION OR LAWN SPRINKLER INSTALLERS	$11.07	1		
LANDSCAPE EQUIPMENT OPERATORS OR TRUCK DRIVERS	$10.63	1		
LANDSCAPING OR PLANTING LABORERS	$8.42	1		
LATHERS				
JOURNEY LEVEL	$41.31	1M	5D	
PAINTERS				
JOURNEY LEVEL	$33.16	2B	5A	
PLASTERERS				
JOURNEY LEVEL	$41.23	1R	5A	
PLUMBERS & PIPEFITTERS				
JOURNEY LEVEL	$55.34	1G	5A	
POWER EQUIPMENT OPERATORS				
ASSISTANT ENGINEERS	$39.57	1M	5D	8L
BACKHOE, EXCAVATOR, SHOVEL (3 YD & UNDER)	$42.35	1M	5D	8L
BACKHOE, EXCAVATOR, SHOVEL (OVER 3 YD & UNDER 6 YD)	$42.84	1M	5D	8L
BACKHOE, EXCAVATOR, SHOVEL (6 YD AND OVER WITH	$43.39	1M	5D	8L
BACKHOES, (75 HP & UNDER)	$41.93	1M	5D	8L
BACKHOES, (OVER 75 HP)	$42.35	1M	5D	8L
BARRIER MACHINE (ZIPPER)	$42.35	1M	5D	8L
BATCH PLANT OPERATOR, CONCRETE	$42.35	1M	5D	8L
BELT LOADERS (ELEVATING TYPE)	$41.93	1M	5D	8L
BOBCAT (SKID STEER)	$39.57	1M	5D	8L
BROOMS	$39.57	1M	5D	8L
BUMP CUTTER	$42.35	1M	5D	8L
CABLEWAYS	$42.84	1M	5D	8L
CHIPPER	$42.35	1M	5D	8L
COMPRESSORS	$39.57	1M	5D	8L
CONCRETE FINISH MACHINE - LASER SCREED	$39.57	1M	5D	8L
CONCRETE PUMPS	$41.93	1M	5D	8L
CONCRETE PUMP-TRUCK MOUNT WITH BOOM ATTACHMENT	$42.35	1M	5D	8L
CONVEYORS	$41.93	1M	5D	8L
CRANES, THRU 19 TONS, WITH ATTACHMENTS	$41.93	1M	5D	8L
CRANES, 20 - 44 TONS, WITH ATTACHMENTS	$42.35	1M	5D	8L
CRANES, 45 TONS - 99 TONS, UNDER 150 FT OF BOOM (INCLUDING JIB WITH ATACHMENTS)	$42.84	1M	5D	8L
CRANES, 100 TONS - 199 TONS, OR 150 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS)	$43.39	1M	5D	8L
CRANES, 200 TONS TO 300 TONS, OR 250 FT OF BOOM (INCLUDING JIB WITH ATTACHMENTS)	$43.96	1M	5D	8L
CRANES, A-FRAME, 10 TON AND UNDER	$39.57	1M	5D	8L
CRANES, A-FRAME, OVER 10 TON	$41.93	1M	5D	8L
CRANES, OVER 300 TONS, OR 300' OF BOOM INCLUDING JIB WITH ATTACHMENTS	$44.52	1M	5D	8L
CRANES, OVERHEAD, BRIDGE TYPE (20 - 44 TONS)	$42.35	1M	5D	8L
CRANES, OVERHEAD, BRIDGE TYPE (45 - 99 TONS)	$42.84	1M	5D	8L
CRANES, OVERHEAD, BRIDGE TYPE (100 TONS & OVER)	$43.39	1M	5D	8L
CRANES, TOWER CRANE UP TO 175' IN HEIGHT, BASE TO BOOM	$43.39	1M	5D	8L
CRANES, TOWER CRANE OVER 175' IN HEIGHT, BASE TO BOOM	$43.96	1M	5D	8L
CRUSHERS	$42.35	1M	5D	8L
DECK ENGINEER/DECK WINCHES (POWER)	$42.35	1M	5D	8L
DERRICK, BUILDING	$42.84	1M	5D	8L

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DOZERS, D-9 & UNDER	$41.93	1M	5D	8L
DRILL OILERS - AUGER TYPE, TRUCK OR CRANE MOUNT	$41.93	1M	5D	8L
DRILLING MACHINE	$42.35	1M	5D	8L
ELEVATOR AND MANLIFT, PERMANENT AND SHAFT-TYPE	$39.57	1M	5D	8L
EQUIPMENT SERVICE ENGINEER (OILER)	$41.93	1M	5D	8L
FINISHING MACHINE/BIDWELL GAMACO AND SIMILAR EQUIP	$42.35	1M	5D	8L
FORK LIFTS, (3000 LBS AND OVER)	$41.93	1M	5D	8L
FORK LIFTS, (UNDER 3000 LBS)	$39.57	1M	5D	8L
GRADE ENGINEER	$41.93	1M	5D	8L
GRADECHECKER AND STAKEMAN	$39.57	1M	5D	8L
GUARDRAIL PUNCH	$42.35	1M	5D	8L
HOISTS, OUTSIDE (ELEVATORS AND MANLIFTS), AIR TUGGERS	$41.93	1M	5D	8L
HORIZONTAL/DIRECTIONAL DRILL LOCATOR	$41.93	1M	5D	8L
HORIZONTAL/DIRECTIONAL DRILL OPERATOR	$42.35	1M	5D	8L
HYDRALIFTS/BOOM TRUCKS (10 TON & UNDER)	$39.57	1M	5D	8L
HYDRALIFTS/BOOM TRUCKS (OVER 10 TON)	$41.93	1M	5D	8L
LOADERS, OVERHEAD (6 YD UP TO 8 YD)	$42.84	1M	5D	8L
LOADERS, OVERHEAD (8 YD & OVER)	$43.39	1M	5D	8L
LOADERS, OVERHEAD (UNDER 6 YD), PLANT FEED	$42.35	1M	5D	8L
LOCOMOTIVES, ALL	$42.35	1M	5D	8L
MECHANICS, ALL	$42.84	1M	5D	8L
MIXERS, ASPHALT PLANT	$42.35	1M	5D	8L
MOTOR PATROL GRADER (FINISHING)	$42.35	1M	5D	8L
MOTOR PATROL GRADER (NON-FINISHING)	$41.93	1M	5D	8L
MUCKING MACHINE, MOLE, TUNNEL DRILL AND/OR SHIELD	$42.84	1M	5D	8L
OIL DISTRIBUTORS, BLOWER DISTRIBUTION AND MULCH SEEDING OPERATOR	$39.57	1M	5D	8L
PAVEMENT BREAKER	$39.57	1M	5D	8L
PILEDRIVER (OTHER THAN CRANE MOUNT)	$42.35	1M	5D	8L
PLANT OILER (ASPHALT, CRUSHER)	$41.93	1M	5D	8L
POSTHOLE DIGGER, MECHANICAL	$39.57	1M	5D	8L
POWER PLANT	$39.57	1M	5D	8L
PUMPS, WATER	$39.57	1M	5D	8L
QUAD 9, D-10, AND HD-41	$42.84	1M	5D	8L
REMOTE CONTROL OPERATOR ON RUBBER TIRED EARTH MOVING EQUIP	$42.84	1M	5D	8L
RIGGER AND BELLMAN	$39.57	1M	5D	8L
ROLLAGON	$42.84	1M	5D	8L
ROLLER, OTHER THAN PLANT ROAD MIX	$39.57	1M	5D	8L
ROLLERS, PLANTMIX OR MULTILIFT MATERIALS	$41.93	1M	5D	8L
ROTO-MILL, ROTO-GRINDER	$42.35	1M	5D	8L
SAWS, CONCRETE	$41.93	1M	5D	8L
SCRAPERS - SELF PROPELLED, HARD TAIL END DUMP, ARTICULATING OFF-ROAD EQUIPMENT (UNDER 45 YD)	$42.35	1M	5D	8L
SCRAPERS - SELF PROPELLED, HARD TAIL END DUMP, ARTICULATING OFF-ROAD EQUIPMENT (45 YD AND OVER)	$42.84	1M	5D	8L
SCRAPERS, CONCRETE AND CARRY ALL	$41.93	1M	5D	8L
SCREED MAN	$42.35	1M	5D	8L
SHOTCRETE GUNITE	$39.57	1M	5D	8L
SLIPFORM PAVERS	$42.84	1M	5D	8L
SPREADER, TOPSIDE OPERATOR - BLAW KNOX	$42.35	1M	5D	8L
SUBGRADE TRIMMER	$42.35	1M	5D	8L
TOWER BUCKET ELEVATORS	$41.93	1M	5D	8L
TRACTORS, (75 HP & UNDER)	$41.93	1M	5D	8L
TRACTORS, (OVER 75 HP)	$42.35	1M	5D	8L
TRANSFER MATERIAL SERVICE MACHINE	$42.35	1M	5D	8L
TRANSPORTERS, ALL TRACK OR TRUCK TYPE	$42.84	1M	5D	8L
TRENCHING MACHINES	$41.93	1M	5D	8L

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TRUCK CRANE OILER/DRIVER (UNDER 100 TON)	$41.93	1M	5D	8L
TRUCK CRANE OILER/DRIVER (100 TON & OVER)	$42.35	1M	5D	8L
TRUCK MOUNT PORTABLE CONVEYER	$42.35	1M	5D	8L
WHEEL TRACTORS, FARMALL TYPE	$39.57	1M	5D	8L
YO YO PAY DOZER	$42.35	1M	5D	8L
POWER LINE CLEARANCE TREE TRIMMERS				
JOURNEY LEVEL IN CHARGE	$35.62	4A	5A	
SPRAY PERSON	$33.82	4A	5A	
TREE EQUIPMENT OPERATOR	$34.27	4A	5A	
TREE TRIMMER	$31.88	4A	5A	
TREE TRIMMER GROUNDPERSON	$24.03	4A	5A	
REFRIGERATION & AIR CONDITIONING MECHANICS				
MECHANIC	$53.01	1G	5A	
ROOFERS				
JOURNEY LEVEL	$35.78	1R	5A	
USING IRRITABLE BITUMINOUS MATERIALS	$38.78	1R	5A	
SHEET METAL WORKERS				
JOURNEY LEVEL (FIELD OR SHOP)	$49.97	1E	6L	
SOFT FLOOR LAYERS				
JOURNEY LEVEL	$33.76	1B	5A	
SOLAR CONTROLS FOR WINDOWS				
JOURNEY LEVEL	$12.44	1	5S	
SPRINKLER FITTERS (FIRE PROTECTION)				
JOURNEY LEVEL	$53.24	1X	5C	
SURVEYORS				
CHAIN PERSON	$9.35	1		
INSTRUMENT PERSON	$11.40	1		
PARTY CHIEF	$13.40	1		
TELECOMMUNICATION TECHNICIANS				
TELECOMMUNICATION TECHNICIANS JOURNEY LEVEL	$22.76	1		
TELEPHONE LINE CONSTRUCTION - OUTSIDE				
CABLE SPLICER	$29.89	2B	5A	
HOLE DIGGER/GROUND PERSON	$16.81	2B	5A	
INSTALLER (REPAIRER)	$28.68	2B	5A	
JOURNEY LEVEL TELEPHONE LINEPERSON	$27.82	2B	5A	
SPECIAL APPARATUS INSTALLER I	$29.89	2B	5A	
SPECIAL APPARATUS INSTALLER II	$29.30	2B	5A	
TELEPHONE EQUIPMENT OPERATOR (HEAVY)	$29.89	2B	5A	
TELEPHONE EQUIPMENT OPERATOR (LIGHT)	$27.82	2B	5A	
TELEVISION GROUND PERSON	$15.96	2B	5A	
TELEVISION LINEPERSON/INSTALLER	$21.17	2B	5A	
TELEVISION SYSTEM TECHNICIAN	$25.15	2B	5A	
TELEVISION TECHNICIAN	$22.64	2B	5A	
TREE TRIMMER	$27.82	2B	5A	
TERRAZZO WORKERS & TILE SETTERS				
JOURNEY LEVEL	$40.33	1B	5A	
TILE, MARBLE & TERRAZZO FINISHERS				
FINISHER	$34.16	1B	5A	
TRAFFIC CONTROL STRIPERS				
JOURNEY LEVEL	$34.90	1K	5A	
TRUCK DRIVERS				
ASPHALT MIX (TO 16 YARDS)	$39.04	1T	5D	8L
ASPHALT MIX (OVER 16 YARDS)	$39.62	1T	5D	8L
DUMP TRUCK	$39.04	1T	5D	8L
DUMP TRUCK & TRAILER	$39.62	1T	5D	8L
OTHER TRUCKS	$39.62	1T	5D	8L
TRANSIT MIXER	$23.45	1		
WELL DRILLERS & IRRIGATION PUMP INSTALLERS				
IRRIGATION PUMP INSTALLER	$17.71	1		

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Classification	PREVAILING WAGE	(See Benefit Code Key) Over Time Code	Holiday Code	Note Code
OILER	$12.97	1		
WELL DRILLER	$17.68	1		

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

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

1. Is the item fabricated for a public works project? If not, it is not subject to RCW 39.12. If it is, go to question 2.

2. Is the item fabricated on the public works jobsite? If it is, the work is covered under RCW 39.12. If not, go to question 3.

3. Is the item fabricated in an assembly/fabrication plant set up for, and dedicated primarily to, the public works project? If it is, the work is covered by RCW 39.12. If not, go to question 4.

4. Does the item require any assembly, cutting, modification or other fabrication by the supplier? If not, the work is not covered by RCW 39.12. If yes, go to question 5.

5. Is the prefabricated item intended for the public works project typically an inventory item which could reasonably be sold on the general market? If not, the work is covered by RCW 39.12. If yes, go to question 6.

6. Does the specific prefabricated item, generally defined as standard, have any unusual characteristics such as shape, type of material, strength requirements, finish, etc? If yes, the work is covered under RCW 39.12.

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

WSDOT's
Predetermined List for
Suppliers - Manufacturers - Fabricators

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

ITEM DESCRIPTION	YES	NO
1. Manhole Ring & Cover - manhole type 1, 2, 3, and 4. For use with Catch Basin type 2. The casting to meet AASHTO-M-105, class 30 gray iron casting. See Std. Plan B-30.10, B-30.70, B-30.80, and E-5.		X
2. Frame & Grate - frame and Grate for Catch Basin type 1, 1L, 1P, 2, and Concrete Inlets. Cast frame may be grade 70-36 steel, class 30 gray cast iron or grade 80-55-06 ductile iron. The cast grate may be grade 70-36 steel or grade 80-55-06 ductile iron. See Std. Plan B-25.20, B-30.20, B-30.30, B-30.40, and B-30.50.		X
3. Grate Inlet & Drop Inlet Frame & Grate - Frame and Grate for Grate Inlets Type 1 or 2 or Drop Inlets Type 1 or 2. Angle iron frame to be cast into top of inlet. See Std. Plan B-35.20, B-40.20, B-40.40, and B-50.20.		X
4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.		X
5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.		X

	YES	NO
6. Corrugated Steel Pipe - Steel lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, 1 thru 5.		X
7. Corrugated Aluminum Pipe - Aluminum lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, #5.		X
8. Anchor Bolts & Nuts - Anchor Bolts and Nuts, for mounting sign structures, luminaries and other items, shall be made from commercial bolt stock. See Contract Plans and Std. Plans for size and material type.		X
9. Aluminum Pedestrian Handrail - Pedestrian handrail conforming to the type and material specifications set forth in the contract plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).	X	
10. Major Structural Steel Fabrication - Fabrication of major steel items such as trusses, beams, girders, etc., for bridges.	X	
11. Minor Structural Steel Fabrication - Fabrication of minor steel items such as special hangers, brackets, access doors for structures, access ladders for irrigation boxes, bridge expansion joint systems, etc., involving welding, cutting, punching and/or boring of holes. See Contact Plans for item description and shop drawings.	X	
12. Aluminum Bridge Railing Type BP - Metal bridge railing conforming to the type and material specifications set forth in the Contract Plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).		X

	YES	NO
13. Concrete Piling--Precast-Prestressed concrete piling for use as 55 and 70 ton concrete piling. Concrete to conform to Section 9-19.1 of Std. Spec.. Shop drawings for approval shall be provided per Section 6-05.3(3) of the Std. Spec. See Std. Plans E-4 and E-4a		X
14. Manhole Type 1, 2, 3 and 4 - Precast Manholes with risers and flat top slab and/or cones. See Std. Plans B-15.20, B-15.40, and B-15.60.		X
15. Drywell - Drywell as specified in Section 9-12.7 of the Std. Sec. See Std. Plan B-20.20, B-20.40, and B-20.60.		X
16. Catch Basin - Catch Basin type 1, 1L, 1P, and 2, including risers, frames maybe cast into riser. See Std. Plans B-5.20, B-5.40, B-5.60, B-10.20, B-10.40, and B-10.60.		X
17. Precast Concrete Inlet - Concrete Inlet with risers, frames may be cast into risers. See Std. Plan B-25.60.		X
18. Drop Inlet Type 1 - Drop Inlet Type 1 with support angles and grate. See Std. Plans B-45.20.		X
19. Drop Inlet Type 2 - Drop Inlet type 2 with support angles and grate. See Std. Plans B-45.40.		X
20. Grate Inlet Type 2 - Grate Inlet Type 2 with risers and top unit with bearing angles. See Std. Plans B-35.40.		X
21. Precast Concrete Utility Vaults - Precast Concrete utility vaults of various sizes. Used for in ground storage of utility facilities and controls. See Contract Plans for size and construction requirements. Shop drawings		X

	YES	NO
are to be provided for approval prior to casting.		
22. Vault Risers - For use with Valve Vaults and Utilities Vaults.		X
23. Valve Vault - For use with underground utilities. See Contract Plans for details.		X
24. Precast Concrete Barrier - Precast Concrete Barrier for use as new barrier or may also be used as Temporary Concrete Barrier. Only new state approved barrier may be used as permanent barrier.		X
25. Reinforced Earth Wall Panels - Reinforced Earth Wall Panels in size and shape as shown in the Plans. Fabrication plant has annual approval for methods and materials to be used. See Shop Drawing. Fabrication at other locations may be approved, after facilities inspection, contact HQ. Lab.	X	
26. Precast Concrete Walls - Precast Concrete Walls - tilt-up wall panel in size and shape as shown in Plans. Fabrication plant has annual approval for methods and materials to be used.	X	
27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.	X	
28. 12, 18 and 26 inch Standard Precast Prestressed Girder - Standard Precast Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)c.	X	

	YES	NO
29. Prestressed Concrete Girder Series 4-14 - Prestressed Concrete Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)c.	X	
30. Prestressed Tri-Beam Girder - Prestressed Tri-Beam Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)c.	X	
31. Prestressed Precast Hollow-Core Slab - Precast Prestressed Hollow-core slab for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)c.	X	
32. Prestressed-Bulb Tee Girder - Bulb Tee Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(26)A.	X	
33. Monument Case and Cover - To meet AASHTO-M-105 class 30 gray iron casting. See Std. Plan H-7.		X
34. Cantilever Sign Structure - Cantilever Sign Structure fabricated from steel tubing meeting AASHTO-M-183. See Std. Plans G-3, G-3a, G-3b, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
35. Mono-tube Sign Structures - Mono-tube Sign Bridge fabricated to details shown in the Plans. Shop drawings for approval are required prior to fabrication.	X	

	YES	NO
36. Steel Sign Bridges - Steel Sign Bridges fabricated from steel tubing meeting AASHTO-M-138 for Aluminum Alloys. See Std. Plans G-2, G2a, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
37. Steel Sign Post - Fabricated steel sign posts as detailed in Std. Plan G-8a, G-8b, G-8c, G-8d, G-8e, G-8f, and G-8g. Shop drawings for approval are to be provided prior to fabrication.		X
38. Light Standard-Prestressed - Spun, prestressed, hollow, concrete poles.	X	
39. Light Standards - Lighting Standards for use on highway illumination systems, poles to be fabricated to conform with methods and materials as specified on Std. Plan J-1a. See Special Provisions for pre-approved drawings.	X	
40. Traffic Signal Standards - Traffic Signal Standards for use on highway and/or street signal systems. Standards to be fabricated to conform with methods and material as specified on Std. Plans J-7a and J-7c. See Special Provisions for pre-approved drawings.	X	
41. Traffic Curb, Type A or C Precast - Type A or C Precast traffic curb, for use in construction of raised channelization, and other traffic delineation uses such as parking lots, rest areas, etc. NOTE: Acceptance based on inspection of Fabrication Plant and an advance sample of curb section to be submitted for approval by Engineer.		X

	YES	NO
42. Traffic Signs - Prior to approval of a Fabricator of Traffic Signs, the sources of the following materials must be submitted and approved for reflective sheeting, legend material, and aluminum sheeting. NOTE: *** Fabrication inspection required. Only signs tagged "Fabrication Approved" by WSDOT Sign Fabrication Inspector to be installed.	X custom msg	X std. msg
43. Cutting & bending reinforcing steel		X
44. Guardrail components	X custom end sect.	X standard sect.
45. Aggregates/Concrete mixes	Covered by WAC 296-127-018	
46. Asphalt	Covered by WAC 296-127-018	
47. Fiber fabrics		X
48. Electrical wiring/components		X
49. Treated or untreated timber piles		X
50. Girder pads (elastomeric bearing)	X	

	YES	NO
51. Standard Dimension lumber		X
52. Irrigation components		X
53. Fencing materials		X
54. Guide Posts		X
55. Raised Pavement Markers		X
56. Epoxy		X
57. Cribbing		X
58. Water distribution materials		X
59. Steel "H" piles		X
60. Steel pipe for concrete pile casings		X
61. Steel pile tips, standard		X
62. Steel pile tips, custom	X	

WASHINGTON STATE PREVAILING WAGE RATES - EFFECTIVE 03/3/07
METAL FABRICATION (IN SHOP)

Classification	PREVAILING WAGE	Over Time Code	Holiday Code	Note Code
Counties Covered: Adams, Asotin, Columbia, Douglas, Ferry, Franklin, Garfield Kittitas, Lincoln, Okanogan, Pend Oreille, Stevens, Walla Walla and Whitman				
Fitter	12.76	1		
Welder	12.76	1		
Machine Operator	12.66	1		
Painter	10.20	1		
Laborer	8.13	1		
Counties Covered: Benton				
Welder	16.70	1		
Machine Operator	10.53	1		
Painter	9.76	1		
Counties Covered: Chelan				
Fitter	15.04	1		
Welder	12.24	1		
Machine Operator	9.71	1		
Painter	9.93	1		
Laborer	9.40	1		
Counties Covered: Clallam, Grays Harbor, Island, Jefferson, Lewis, Mason, Pacific, San Juan and Skagit				
Fitter	15.16	1		
Welder	15.16	1		
Machine Operator	10.66	1		
Painter	11.41	1		
Laborer	11.13	1		

METAL FABRICATION (IN SHOP) 03/3/07

Classification	PREVAILING WAGE	Over Time Code	Holiday Code	Note Code
Counties Covered: Clark				
Layerout	27.20	1E	6B	
Fitter	25.92	1E	6B	
Welder	25.32	1E	6B	
Painter	23.74	1E	6B	
Machine Operator	25.92	1E	6B	
Laborer	17.64	1E	6B	
Counties Covered: Snohomish				
Fitter	15.38	1		
Welder	15.38	1		
Machine Operator	8.84	1		
Painter	9.98	1		
Laborer	9.79	1		
Counties Covered: Spokane				
Fitter	12.59	1		
Welder	10.80	1		
Machine Operator	13.26	1		
Painter	10.27	1		
Laborer	7.98	1		
Counties Covered: Thurston				
Layerout	26.77	1A	6T	
Fitter	24.70	1A	6T	
Welder	22.63	1A	6T	
Machine Operator	19.54	1A	6T	
Laborer	16.43	1A	6T	
Counties Covered: Whatcom				
Fitter/Welder	13.81	1		
Machine Operator	13.81	1		
Laborer	9.00	1		

METAL FABRICATION (IN SHOP) 03/3/07

Classification	PREVAILING WAGE	Over Time Code	Holiday Code	Note Code
Counties Covered: Yakima				
Fitter	12.00	1		
Welder	11.32	1		
Machine Operator	11.32	1		
Painter	12.00	1		
Laborer	10.31	1		
Counties Covered: Cowlitz				
Fitter	24.48	1B	6V	
Welder	24.48	1B	6V	
Machine Operator	24.48	1B	6V	
Counties Covered: Grant				
Fitter	10.79	1		
Welder	10.79	1		
Painter	7.63	1		
Counties Covered: King				
Fitter	15.86	1		
Welder	15.48	1		
Machine Operator	13.04	1		
Painter	11.10	1		
Laborer	9.78	1		
Counties Covered: Kitsap				
Fitter	26.96	1		
Welder	13.83	1		
Machine Operator	13.83	1		
Laborer	7.63	1		

METAL FABRICATION (IN SHOP) 03/3/07

Classification	PREVAILING WAGE	Over Time Code	Holiday Code	Note Code
Counties Covered: Klickitat, Skamania and Wahkiakum				
Fitter/Welder	16.99	1		
Machine Operator	17.21	1		
Painter	17.03	1		
Laborer	10.44	1		
Counties Covered: Pierce				
Fitter	15.25	1		
Welder	13.98	1		
Machine Operator	13.98	1		
Laborer	10.18	1		

WASHINGTON STATE PREVAILING WAGE RATES - EFFECTIVE 03/3/07
FABRICATED PRECAST CONCRETE PRODUCTS

Classification	PREVAILING WAGE	Over Time Code	Holiday Code	Note Code
Counties Covered: Adams, Asotin, Benton, Columbia, Douglas, Ferry, Garfield, Grant, Lincoln, Okanogan, Pend Oreille, Stevens, Walla Walla, and Whitman				
All Classifications	9.96	1		
Counties Covered: Franklin				
All Classifications	11.50	1		
Counties Covered: King				
All Classifications	12.30	2K	5B	
Counties Covered: Pierce				
All Classifications	9.28	1		
Counties Covered: Chelan, Kittitas, Klickitat and Skamania				
All Classifications	8.61	1		
Counties Covered: Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, Kitsap, Lewis, Mason, Pacific, San Juan, Skagit, Snohomish, Thurston, Wahkiakum				
All Classifications	13.50	1		

WASHINGTON STATE PREVAILING WAGE RATES - EFFECTIVE 03/3/07
FABRICATED PRECAST CONCRETE PRODUCTS

Classification		PREVAILING WAGE	Over Time Code	Holiday Code	Note Code
	Counties Covered: Spokane				
All Classifications		20.23	1		
	Counties Covered: Yakima				
Craftsman		8.65	1		
Laborer		7.63	1		
	Counties Covered: Whatcom				
All Classifications		13.67	1		

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

The following two letters from the State Department of Labor and Industries (State L&I) dated August 18, 1992 and June 18, 1999, clarify the intent and establish policy for administrating the provisions of WAC 296-127-018 COVERAGE AND EXEMPTIONS OF WORKERS INVOLVED IN THE PRODUCTION AND DELIVERY OF GRAVEL, CONCRETE, ASPHALT, OR SIMILAR MATERIALS.

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

Effective September 1, 1993, minimum prevailing wages for all work covered by WAC 296-127-018 for the production and/or delivery of materials to a public works contract will be found under the regular classification of work for Teamsters, Power Equipment Operators, etc.

ESAC DIVISION - TELEPHONE (206) 586-6887
PO BOX 44540, OLYMPIA, WASHINGTON 98504-4540

August 18, 1992

TO: All Interested Parties

FROM: Jim P. Christensen
Acting Industrial Statistician

SUBJECT: Materials Suppliers - WAC 296-127-018

This memo is intended to provide greater clarity regarding the application of WAC 296-127-018 to awarding agencies, contractors, subcontractors, material suppliers and other interested parties. The information contained herein should not be construed to cover all possible scenarios which might require the payment of prevailing wage. The absence of a particular activity under the heading "PREVAILING WAGES ARE REQUIRED FOR" does not mean that the activity is not covered.

Separate Material Supplier Equipment Operator rates have been eliminated. For those cases where a production facility is set up for the specific purpose of supplying materials to a public works construction site, prevailing wage rates for operators of equipment such as crushers and batch plants can be found under Power Equipment Operators.

PREVAILING WAGES ARE REQUIRED FOR:

1. Hauling materials away from a public works project site, including excavated materials, demolished materials, etc.

2. Delivery of materials to a public works project site using a method that involves incorporation of the delivered materials into the project site, such as spreading, leveling, rolling, etc.

3. The production of materials at a facility that is established for the specific, but not necessarily exclusive, purpose of supplying materials for a public works project.

4. Delivery of the materials mentioned in #3 above, regardless of the method of delivery.

PREVAILING WAGES ARE NOT REQUIRED FOR:

1. The production of materials by employees of an established materials supplier, in a permanent facility, as well as the delivery of these materials, as long as delivery does not include incorporation of the materials into the job site.

2. Delivery of materials by a common or contract carrier, as long as delivery does not include incorporation of the materials into the job site.

3. Production of materials for unspecified future use.

STATE OF WASHINGTON
DEPARTMENT OF LABOR AND INDUSTRIES

June 18, 1999

TO: Kerry S. Radcliff, Editor
Washington State Register

FROM: Gary Moore, Director
Department of Labor and Industries

SUBJECT: **Notice re WAC 296-127-018, Coverage and exemptions of workers involved in the production and delivery of gravel, concrete, asphalt, or similar materials**

The department wishes to publish the following Notice in the next edition of the Washington State Register:

NOTICE

Under the current material supplier regulations, WAC 296-127-018, the department takes the position that prevailing wages do not apply to the delivery of wet concrete to public works sites, unless the drivers do something more than just deliver the concrete. Drivers delivering concrete into a crane and bucket, hopper of a pump truck, or forms or footings, are not entitled to prevailing wages unless they operate machinery or use tools that screed, float, or put a finish on the concrete.

This position applies only to the delivery of wet concrete. It does not extend to the delivery of asphalt, sand, gravel, crushed rock, or other similar materials covered under WAC 296-127-018. The department's position applies only to this regulation.

If you need additional information regarding this matter, please contact Greg Mowat, Program Manager, Employment Standards, at P.O. Box 44510, Olympia, WA 98504-4510, or call (360) 902-5310.

Please publish the above Notice in WSR 99-13. If you have questions or need additional information, please call Selwyn Walters at 902-4206. Thank you.

Cc: Selwyn Walters, Rules Coordinator
Patrick Woods, Assistant Director
Greg Mowat, Program Manager

BENEFIT CODE KEY - EFFECTIVE 03-3-07

****

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.

A. ALL HOURS WORKED ON SATURDAYS, SUNDAYS AND HOLIDAYS SHALL ALSO 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 WORKED 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.

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.

L. 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.

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.

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.

1. 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.

   S. 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, 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.

   T. ALL HOURS WORKED ON SATURDAYS, EXCEPT MAKE-UP DAYS, SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED AFTER 6:00PM SATURDAY TO 6:00AM MONDAY AND ON HOLIDAYS 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 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 SATURDAYS, SUNDAYS AND HOLIDAYS (EXCEPT THANKSGIVING DAY AND CHRISTMAS DAY) SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED ON THANKSGIVING DAY AND CHRISTMAS DAY SHALL BE PAID AT DOUBLE THE HOURLY RATE OF WAGE.

   W. ALL HOURS WORKED ON SATURDAYS AND SUNDAYS (EXCEPT MAKE-UP DAYS DUE TO CONDITIONS BEYOND THE CONTROL OF THE EMPLOYER)) SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED ON HOLIDAYS SHALL BE PAID AT DOUBLE THE HOURLY RATE OF WAGE.

   X. THE FIRST FOUR (4) HOURS AFTER EIGHT (8) REGULAR HOURS MONDAY THROUGH FRIDAY AND THE FIRST TWELVE (12) HOURS ON SATURDAY SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED OVER TWELVE (12) HOURS MONDAY THROUGH SATURDAY, SUNDAYS AND HOLIDAYS SHALL BE PAID AT DOUBLE THE HOURLY RATE OF WAGE. WHEN HOLIDAY FALLS ON SATURDAY OR SUNDAY, THE DAY BEFORE SATURDAY, FRIDAY, AND THE DAY AFTER SUNDAY, MONDAY, SHALL BE CONSIDERED THE HOLIDAY AND ALL WORK PERFORMED SHALL BE PAID AT DOUBLE THE HOURLY RATE OF WAGE.

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.

   A. THE FIRST SIX (6) HOURS ON SATURDAY SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED IN EXCESS OF SIX (6) HOURS ON SATURDAY AND ALL HOURS WORKED ON SUNDAYS AND HOLIDAYS SHALL BE PAID AT TWO 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.

   C. ALL HOURS WORKED ON SUNDAYS SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED ON HOLIDAYS SHALL BE PAID AT TWO TIMES THE HOURLY RATE OF WAGE.

   D. ALL HOURS WORKED ON SATURDAYS AND SUNDAYS SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. THE FIRST EIGHT (8) HOURS WORKED ON HOLIDAYS SHALL BE PAID AT STRAIGHT TIME IN ADDITION TO THE HOLIDAY PAY. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS ON HOLIDAYS SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   E. ALL HOURS WORKED ON SATURDAYS OR HOLIDAYS (EXCEPT LABOR DAY) SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED ON SUNDAYS OR ON LABOR DAY SHALL BE PAID AT TWO 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.

   G. 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 HOURS WORKED ON SUNDAY SHALL BE PAID AT TWO 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.

2. I. ALL HOURS WORKED ON SATURDAYS AND HOLIDAYS (EXCEPT LABOR DAY) SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE. ALL HOURS WORKED ON SUNDAYS AND ON LABOR DAY SHALL BE PAID AT TWO TIMES THE HOURLY RATE OF WAGE.

J. ALL HOURS WORKED ON SUNDAYS 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 THE HOLIDAY PAY. ALL HOURS WORKED ON UNPAID HOLIDAYS SHALL BE PAID AT TWO TIMES THE HOURLY RATE OF WAGE.

K. ALL HOURS WORKED ON HOLIDAYS SHALL BE PAID AT TWO TIMES THE HOURLY RATE OF WAGE IN ADDITION TO THE HOLIDAY PAY.

M. ALL HOURS WORKED ON SATURDAYS, SUNDAYS AND HOLIDAYS SHALL BE PAID AT DOUBLE THE HOURLY RATE OF WAGE.

O. ALL HOURS WORKED ON SUNDAYS AND HOLIDAYS SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

P. THE FIRST EIGHT (8) HOURS ON 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 SATURDAY AND ALL HOURS WORKED ON SUNDAYS AND HOLIDAYS SHALL BE PAID AT TWO TIMES THE HOURLY RATE OF WAGE.

4A. 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.

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).

E. HOLIDAYS: NEW YEAR'S DAY, PRESIDENTS' DAY, MEMORIAL DAY, INDEPENDENCE DAY, PRESIDENTIAL ELECTION DAY, THANKSGIVING DAY, THE FRIDAY AFTER THANKSGIVING DAY, AND CHRISTMAS DAY (8).

F. 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, AND CHRISTMAS DAY (11).

G. HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, THE LAST WORK DAY BEFORE CHRISTMAS DAY, AND CHRISTMAS DAY (7).

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).

J. HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, THANKSGIVING DAY, FRIDAY AFTER THANKSGIVING DAY, CHRISTMAS EVE DAY, AND CHRISTMAS DAY (7).

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).

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).

5. S. PAID HOLIDAYS: NEW YEAR'S DAY, PRESIDENTS' DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY (7).

T. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, THE FRIDAY AFTER THANKSGIVING DAY, CHRISTMAS DAY, AND THE DAY BEFORE OR AFTER CHRISTMAS (10).

V. PAID HOLIDAYS: SIX (6) PAID HOLIDAYS.

W. PAID HOLIDAYS: NINE (9) PAID HOLIDAYS.

X. HOLIDAYS: AFTER 520 HOURS - NEW YEAR'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY. AFTER 2080 HOURS - NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, CHRISTMAS DAY AND A FLOATING HOLIDAY (8).

Y. HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PRESIDENTIAL ELECTION DAY, THANKSGIVING DAY, THE FRIDAY FOLLOWING THANKSGIVING DAY, AND CHRISTMAS DAY (8).

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).

6. A. PAID HOLIDAYS: NEW YEAR'S DAY, PRESIDENTS' DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, THE FRIDAY AFTER THANKSGIVING DAY, AND CHRISTMAS DAY (8).

B. PAID HOLIDAYS: NEW YEAR'S EVE DAY, NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, THE FRIDAY AFTER THANKSGIVING DAY, CHRISTMAS EVE'S DAY, AND CHRISTMAS DAY (9).

C. HOLIDAYS: NEW YEAR'S DAY, PRESIDENTS' DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, THE DAY AFTER THANKSGIVING DAY, THE LAST WORK DAY BEFORE CHRISTMAS DAY, AND CHRISTMAS DAY (9).

D. PAID HOLIDAYS: NEW YEAR'S DAY, PRESIDENTS' DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, THE FRIDAY AFTER THANKSGIVING DAY, CHRISTMAS DAY, THE DAY BEFORE OR THE DAY AFTER CHRISTMAS DAY (9).

F. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING JR. DAY, PRESIDENTS' DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY, THE DAY AFTER THANKSGIVING DAY, AND CHRISTMAS DAY (11).

I. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, FRIDAY AFTER THANKSGIVING DAY, AND CHRISTMAS DAY (7).

L. 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)

Q. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY, THE DAY AFTER THANKSGIVING DAY AND CHRISTMAS DAY (8). UNPAID HOLIDAY: PRESIDENTS' DAY.

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).

U. HOLIDAYS: NEW YEAR'S DAY, DAY BEFORE NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, THE FRIDAY AFTER THANKSGIVING DAY, THE DAY BEFORE CHRISTMAS DAY, CHRISTMAS DAY (9).

V. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, DAY AFTER THANKSGIVING DAY, CHRISTMAS EVE DAY, CHRISTMAS DAY, AND ONE DAY OF THE EMPLOYEE'S CHOICE (9).

W. PAID HOLIDAYS: NEW YEAR'S DAY, DAY BEFORE NEW YEAR'S DAY, PRESIDENTS DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, DAY AFTER THANKSGIVING DAY, CHRISTMAS DAY, DAY BEFORE OR AFTER CHRISTMAS DAY (10).

X. PAID HOLIDAYS: NEW YEAR'S DAY, DAY BEFORE OR AFTER NEW YEAR'S DAY, PRESIDENTS DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, DAY AFTER THANKSGIVING DAY, CHRISTMAS DAY, DAY BEFORE OR AFTER CHRISTMAS DAY, EMPLOYEE'S BIRTHDAY (11).

NOTE CODES

8. A. THE STANDBY RATE OF PAY FOR DIVERS SHALL BE ONE-HALF TIMES THE DIVERS RATE OF PAY. IN ADDITION TO THE HOURLY WAGE AND FRINGE BENEFITS, THE FOLLOWING DEPTH PREMIUMS APPLY TO DEPTHS OF FIFTY FEET OR MORE:

OVER 50' TO 100' - $1.00 PER FOOT FOR EACH FOOT OVER 50 FEET
OVER 100' TO 175' - $2.25 PER FOOT FOR EACH FOOT OVER 100 FEET
OVER 175' TO 250' - $5.50 PER FOOT FOR EACH FOOT OVER 175 FEET
OVER 250' - DIVERS MAY NAME THEIR OWN PRICE, PROVIDED IT IS NO LESS THAN THE SCALE LISTED FOR 250 FEET

C. THE STANDBY RATE OF PAY FOR DIVERS SHALL BE ONE-HALF TIMES THE DIVERS RATE OF PAY. IN ADDITION TO THE HOURLY WAGE AND FRINGE BENEFITS, THE FOLLOWING DEPTH PREMIUMS APPLY TO DEPTHS OF FIFTY FEET OR MORE:

OVER 50' TO 100' - $1.00 PER FOOT FOR EACH FOOT OVER 50 FEET
OVER 100' TO 150' - $1.50 PER FOOT FOR EACH FOOT OVER 100 FEET
OVER 150' TO 200' - $2.00 PER FOOT FOR EACH FOOT OVER 150 FEET
OVER 200' - DIVERS MAY NAME THEIR OWN PRICE

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.

9. A. SHIFT DIFFERENTIAL: SWING FROM 4:30 PM TO 1 AM IS WAGE PLUS 17.3%
GRAVEYARD FROM 12:30 AM TO 9:00 AM IS WAGE PLUS 31.4%

B. SHIFT DIFFERENTIAL: SWING FROM 4:30 PM TO 12:30 AM IS WAGE PLUS 10% FOR 7 ½ HOURS WORKED
GRAVEYARD FROM 12:30 AM TO 9:00 AM IS WAGE PLUS 15% 7 HOURS WORKED

C.

Proposal
For
Bidding Purposes

For Construction of:

SR 99 MP 31.05 to MP 31.06

YESLER WAY VICINITY
FOUNDATION STABILIZATION

F.A. No. ER-0101(304)

King County

Sealed bids will be received in the Transportation Bid (Commission) Room (1D2) of the Transportation Building, 310 Maple Park Avenue SE, Olympia, Washington 98504-7360, until 11:00 AM, or at PO Box 47360, Olympia, Washington, 98504-7360, until 11:00 AM, on the date scheduled for opening bids.

Washington State Department of Transportation

IS YOUR SUBCONTRACTOR LIST INCLUDED???

IF NOT

YOUR BID WILL BE CONSIDERED IRREGULAR

AND WILL BE REJECTED!!!

SUBMIT THE ENCLOSED PROPOSAL BOND FORM WITH YOUR PROPOSAL.

USE OF OTHER FORMS MAY SUBJECT YOUR BID TO REJECTION.

NOTE: Use of other forms may limit the bond below an amount equal to five percent of the bid total.

Washington State
Department of Transportation

Proposal Bond

KNOW ALL MEN BY THESE PRESENTS, That we,

of as principal, and the

a corporation duly organized under the laws of the state of , and authorized to do business in the State of Washington, as surety, are held and firmly bound unto the State of Washington in the full and penal sum of five (5) percent of the total amount of the bid proposal of said principal for the work hereinafter described, for the payment of which, well and truly to be made, we bind our heirs, executors, administrators and assigns, and successors and assigns, firmly by these presents.

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

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

NOW, THEREFORE, If the said proposal bid by said principal be accepted, and the contract be awarded to said principal, and if said principal shall duly make and enter into and execute said contract and shall furnish bond as required by the Department of Transportation within a period of twenty (20) days from and after said award, exclusive of the day of such award, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

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

_____

_____
(Principal)

_____
(Surety)

_____
(Attorney-in-fact)

SR 99
YESLER WAY VICINITY
FOUNDATION STABILIZATION
07A805

P R O P O S A L

TO THE SECRETARY OF
TRANSPORTATION
OLYMPIA, WASHINGTON

DATE: 08/15/2007
TIME: 12:13
DOT_RGG600

THIS CERTIFIES THAT THE UNDERSIGNED HAS EXAMINED THE LOCATION OF

SR 99 IN KING COUNTY, MILEPOST 31.05 TO 31.06, YESLER WAY VICINITY FOUNDATION STABILIZATION, A FEDERAL AID PROJECT,

AND THAT THE PLANS, SPECIFICATIONS AND CONTRACT GOVERNING THE WORK EMBRACED IN THIS IMPROVEMENT, AND THE METHOD BY WHICH PAYMENT WILL BE MADE FOR SAID WORK IS UNDERSTOOD. THE UNDERSIGNED HEREBY PROPOSES TO UNDERTAKE AND COMPLETE THE WORK EMBRACED IN THIS IMPROVEMENT, OR AS MUCH THEREOF AS CAN BE COMPLETED WITH THE MONEY AVAILABLE IN ACCORDANCE WITH THE SAID PLANS, SPECIFICATIONS AND CONTRACT, AND THE FOLLOWING SCHEDULE OF RATES AND PRICES:

(NOTE: UNIT PRICES FOR ALL ITEMS, ALL EXTENSIONS, AND TOTAL AMOUNT OF BID SHALL BE SHOWN. ALL ENTRIES MUST BE TYPED OR ENTERED IN INK.)

ITEM NO.	PLAN QUANTITY	ITEM DESCRIPTION (STANDARD ITEM NUMBER)	PRICE PER UNIT DOLLARS *	TOTAL AMOUNT DOLLARS
		PREPARATION		
1	LUMP SUM	MOBILIZATION (0001)	LUMP SUM	•
2	LUMP SUM	CLEARING AND GRUBBING (0035)	LUMP SUM	•
3	LUMP SUM	REMOVAL OF STRUCTURE AND OBSTRUCTION (0050)	LUMP SUM	•
4	LUMP SUM	REMOVING PORTION OF EXISTING BRIDGE NO. 99/540 (0061)	LUMP SUM	•
5	387. CU. YD.	CONTAMINATED MATERIAL EXCAVATION INCL. HAUL ()	AT • PER CU. YD.	•
6	845. TON	DISPOSAL OF CONTAMINATED MATERIAL ()	AT • PER TON	•
		GRADING		
7	LUMP SUM	WATERFRONT PEDESTRIAN/BICYCLE FACILITY ()	LUMP SUM	•
8	540. TON	GRAVEL BORROW INCL. HAUL (0431)	AT • PER TON	•
9	290. CU. YD.	EMBANKMENT COMPACTION (0470)	AT • PER CU. YD.	•

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.

ITEM NO.	PLAN QUANTITY	ITEM DESCRIPTION (STANDARD ITEM NUMBER)	PRICE PER UNIT DOLLARS *	TOTAL AMOUNT DOLLARS
		DRAINAGE		
10	200. LIN. FT.	DRAIN PIPE 6 IN. DIAM. (1170)	AT . PER LIN. FT.	.
		WATER LINES		
11	LUMP SUM	WATER MAIN CONC. THRUST COLLAR AND MECH. JT. RESTRAINTS ()	LUMP SUM	.
		STRUCTURE		
12	LUMP SUM	SHORING OR EXTRA EXCAVATION CL. A -PIERS 93 & 94 (4013)	LUMP SUM	.
13	88. EACH	MICROPILE ()	AT . PER EACH	.
14	2. EACH	MICROPILE VERIFICATION LOAD TESTING ()	AT . PER EACH	.
15	8. EACH	MICROPILE PROOF LOAD TESTING ()	AT . PER EACH	.
16	43,900. POUND	ST. REINF. BAR FOR BRIDGE (4149)	AT . PER POUND	.
17	266. CU. YD.	CONC. CLASS 4000 FOR BRIDGE (4322)	AT . PER CU. YD.	.
18	CALCULATED	DEFICIENT STRENGTH CONC. PRICE ADJUSTMENT (4219)	CALCULATED	-1.00
19	LUMP SUM	FURNISHING, INSTALLING, & REMOVING TEMP. SUPPORT SYS. ()	LUMP SUM	.
		SURFACING		
20	44. TON	CRUSHED SURFACING BASE COURSE (5100)	AT . PER TON	.
		HOT MIX ASPHALT		
21	130. TON	HMA FOR PAVEMENT REPAIR CL. 1/2 IN. PG 64-22 (5739)	AT . PER TON	.

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.

ITEM NO.	PLAN QUANTITY	ITEM DESCRIPTION (STANDARD ITEM NUMBER)	PRICE PER UNIT DOLLARS *	TOTAL AMOUNT DOLLARS
		IRRIGATION AND WATER DISTRIBUTION		
22	LUMP SUM	IRRIGATION SYSTEM (6071)	LUMP SUM	.
		EROSION CONTROL AND PLANTING		
23	4. CU. YD.	TOPSOIL TYPE C (6400)	AT . PER CU. YD.	.
24	45. DAY	ESC LEAD (6403)	AT . PER DAY	.
25	90. HOUR	STREET CLEANING (6470)	AT . PER HOUR	.
26	2. EACH	INLET PROTECTION (6471)	AT . PER EACH	.
27	450. LIN. FT.	TEMPORARY CURB (6472)	AT . PER LIN. FT.	.
28	ESTIMATED	EROSION/WATER POLLUTION CONTROL (6490)	ESTIMATED	125,000.00
29	8. EACH	PSIPE SHRUBBERY JAPANESE HOLLY 2 GALLON (6552)	AT . PER EACH	.
30	15. EACH	PSIPE SHRUBBERY DAYLILIES 1 GALLON (6552)	AT . PER EACH	.
31	15. EACH	PSIPE SHRUBBERY JOHNSWORT 1 GALLON (6552)	AT . PER EACH	.
32	2. CU. YD.	BARK OR WOOD CHIP MULCH (6580)	AT . PER CU. YD.	.
		TRAFFIC		
33	132. LIN. FT.	CEMENT CONC. PEDESTRIAN CURB (6707)	AT . PER LIN. FT.	.
34	600. LIN. FT.	PAINT LINE (6806)	AT . PER LIN. FT.	.

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.

ITEM NO.	PLAN QUANTITY	ITEM DESCRIPTION (STANDARD ITEM NUMBER)	PRICE PER UNIT DOLLARS *	TOTAL AMOUNT DOLLARS
		TRAFFIC		
35	LUMP SUM	PROJECT TEMPORARY TRAFFIC CONTROL (6971)	LUMP SUM	•
		OTHER ITEMS		
36	721. SQ. FT.	SHORING OR EXTRA EXCAVATION CLASS B (7008)	AT • PER SQ. FT.	•
37	22. CU. YD.	GRAVEL BACKFILL FOR PIPE BEDDING (7013)	AT • PER CU. YD.	•
38	5. EACH	CONNECTION TO DRAINAGE STRUCTURE (9605)	AT • PER EACH	•
39	LUMP SUM	CLEANING EXISTING DRAINAGE STRUCTURE (7350)	LUMP SUM	•
40	ESTIMATED	ROADSIDE CLEANUP (7480)	ESTIMATED	10,000.00
41	ESTIMATED	FORCE ACCOUNT BEAM REPAIR (7715)	ESTIMATED	50,000.00
42	ESTIMATED	FORCE ACCOUNT EPOXY CRACK SEALING (7715)	ESTIMATED	25,000.00
43	ESTIMATED	ARCHAEOLOGICAL AND HISTORICAL SALVAGE ()	ESTIMATED	77,400.00
44	ESTIMATED	REIMBURSEMENT FOR THIRD PARTY DAMAGE (7725)	ESTIMATED	5.00
45	CALCULATED	MINOR CHANGE (7728)	CALCULATED	-1.00
46	LUMP SUM	SPCC PLAN (7736)	LUMP SUM	•
47	LUMP SUM	DEWATERING SYSTEM ()	LUMP SUM	•

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.

ITEM NO.	PLAN QUANTITY	ITEM DESCRIPTION (STANDARD ITEM NUMBER)	PRICE PER UNIT DOLLARS *	TOTAL AMOUNT DOLLARS
		OTHER ITEMS		
48	3. MONTH	MAINTENANCE AND OPERATION OF DEWATERING SYSTEM ()	AT . PER MONTH	.
49	830. LIN. FT.	TEMPORARY CONSTRUCTION FENCE ()	AT . PER LIN. FT.	.
50	LUMP SUM	CONSTRUCTION SHIELD ()	LUMP SUM	.
51	LUMP SUM	VIBRATION MONITORING ()	LUMP SUM	.
52	130. LIN. FT.	DRAIN PIPE 8 IN. DIAM. (1171)	AT . PER LIN. FT.	.
53	2. EACH	JUNCTION BOX FOR DRAINS ()	AT . PER EACH	.
			CONTRACT TOTAL:	$.

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.

NON-COLLUSION DECLARATION

I, by signing the proposal, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:

1. That the undersigned person(s), firm, association or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.

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

NOTICE TO ALL BIDDERS

To report rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Certification for Federal-Aid Contracts

The prospective participant certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

Washington State Department of Transportation

Disadvantaged Business Enterprise Utilization Certification

To be eligible for award of this contract the bidder must fill out and submit, as part of its bid proposal, the following Disadvantaged Business Enterprise Utilization Certification relating to Disadvantaged Business Enterprise (DBE) requirements. The Contracting Agency shall consider as non-responsive and shall reject any bid proposal that does not contain a DBE Certification which properly demonstrates that the bidder will meet the DBE participation requirements in one of the manners provided for in the proposed contract. The successful bidder's DBE Certification shall be deemed a part of the resulting contract. Information on certified firms is available from OMWBE, telephone 360-753-9693.

_____ certifies that the Disadvantaged Business Enterprise
Name of Bidder

(DBE) Firms listed below have been contacted regarding participation on this project. If this bidder is successful on this project and is awarded the contract, it shall assure that subcontracts or supply agreements are executed with those firms where an "Amount to be Applied Towards Goal" is listed. (If necessary, use additional sheet.)

Name of DBE Certificate Number	Project Role * (Prime, Joint Venture, Subcontractor, Manufacturer, Regular Dealer, Service Provider)	Description of Work	Amount to be Applied Towards Goal **
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Disadvantaged Business Enterprise Subcontracting Goal: _____ DBE Total $ _____ ***

* Regular Dealer status must be approved by the Office of Equal Opportunity, Wash. State Dept. of Transportation, on each contract.

** See the section "Counting DBE Participation Toward Meeting the Goal" in the Contract Document.

*** The Contracting Agency will utilize this amount to determine whether or not the bidder has met the goal or the average goal attainment of all bidders. In the event of an arithmetic difference between this total and the sum of the individual amounts listed above, then the sum of the amounts listed shall prevail and the total will be revised accordingly.

Washington State
Department of Transportation

Subcontractor List

Prepared in compliance with RCW 39.30.060 as amended

To Be Submitted with the Bid Proposal

Project Name _____

Failure to list subcontractors who are proposed to perform the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW will result in your bid being non-responsive and therefore void.

Subcontractor(s) that are proposed to perform the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. The work to be performed is to be listed below the subcontractor(s) name.

If no subcontractor is listed below, the bidder acknowledges that it does not intend to use any subcontractor to perform those items of work.

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Washington State Department of Transportation

Proposal - Signature Page

The bidder is hereby advised that by signature of this proposal he/she is deemed to have acknowledged all requirements and signed all certificates contained herein.

A proposal guaranty in an amount of five percent (5%) of the total bid, based upon the approximate estimate of quantities at the above prices and in the form as indicated below is attached hereto:

Cash	☐	In the Amount of _____
Cashier's Check	☐	_____ Dollars
Certified Check	☐	($ _____) Payable to the State Treasurer
Proposal Bond	☐	In the Amount of 5% of the Bid

Receipt is hereby acknowledged of addendum(s) No.(s) _____, _____ & _____

Signature of Authorized Official(s)

Proposal Must be Signed →

_____

_____

Firm Name _____

Address _____

_____

_____

State of Washington Contractor's License No. _____

Federal ID No. _____

Note:

(1) This proposal form is not transferable and any alteration of the firm's name entered hereon without prior permission from the Secretary of Transportation will be cause for considering the proposal irregular and subsequent rejection of the bid.

(2) Please refer to section 1-02.6 of the standard specifications, re: "Preparation of Proposal," or "Article 4" of the Instruction to Bidders for building construction jobs.

(3) Should it be necessary to modify this proposal either in writing or by electronic means, please make reference to the following proposal number in your communication _____