Specifications, Proposal, and Contract Documents for:

2019 STREET OVERLAY PROJECT

CIP NO.
STC0060019/ STC0060319
Job No. 02-19-PW

City of Kirkland
Department of Public Works
123 Fifth Avenue
Kirkland, Washington 98033
Certificate of Engineer:
The Special Provisions and drawings contained herein have been prepared by or under the direction of the undersigned, whose seal as a Professional Engineer licensed to practice in the State of Washington, is affixed below.

George Minassian, P.E.
Senior Project Engineer

Approved for Construction:

Dave Snider, P.E.
Capital Projects Manager
Invitation to Bid .................................................................................................................. (Tan)
General Information, Proposal & Contract ................................................................. (White)
Amendments to the Standard Specifications ............................................................... (Pink)
Special Provisions ........................................................................................................ (Blue)
Prevailing Wage Rates ............................................................................................... (Yellow)
Appendix A: Pre-Approved Plans
Appendix B: Plans
INVITATION TO BID

Notice is hereby given that the City of Kirkland will receive sealed bids in the office of the Purchasing Agent, City Hall, 123 Fifth Avenue, Kirkland, Washington, at 1:00PM, local time on May 15, 2019, for the project hereinafter referred to as:

2019 STREET OVERLAY PROJECT
CIP NO. SCT0060019/STC0060319
JOB NO. 02-19-PW

At said time all bids will be opened and publicly read aloud. Each bid shall be accompanied by a bid proposal deposit in the form of a cashier's check or a bond issued on a form acceptable to your surety made payable to the City of Kirkland for a sum of not less than five percent (5%) of the total bid amount. No bid shall be considered unless accompanied by such bid proposal deposit. Incomplete proposals and proposals received after the time stated above will not be considered. Faxed or emailed responses are not acceptable.

The work to be performed under these specifications consists of furnishing all labor, tools, materials, and equipment necessary for construction of the 2019 Street Overlay Project. Specific work includes, but is not limited to, replacement of damaged cement concrete curb, gutter, and sidewalks, installation of ADA sidewalk ramp, erosion control, preparation and resurfacing of asphalt concrete roadway, pavement repair, pavement markings, traffic signal loops, traffic control and other work. Contract award will be made to the lowest, responsible, responsive bidder based on the total of base bid schedules. The Owner, at their discretion, will award any combination of the bid schedules where the total amount awarded will be approximately $1.6 million.

The City will not sell bid packages. Plans, specifications, and addenda may be viewed and obtained online at www.bxwa.com. Click on: “Posted Projects”; “Public Works”, “City of Kirkland”. The Bidders List is maintained by the Builder’s Exchange of Washington, Inc. Registration for the bidder’s list may be made online, by phoning (425) 258-1303, or at Builder’s Exchange of Washington located at 2607 Wetmore Ave, Everett, WA.

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

Questions regarding this project shall be submitted in writing to George Minassian via fax (425) 587-3844. Questions via phone or email will not be accepted. Bidders shall submit questions no later than May 10, 2019 at 4:00PM.

The City reserves the right to reject any and all bids, and to waive any informalities in the bidding, and to make the award to the lowest, responsive, responsible bidder as best serves the interests of the City.

No bids may be withdrawn within forty-five (45) days after the actual date of the bid opening.
Published: Daily Journal of Commerce – May 1, 2019; May 8, 2019
GENERAL INFORMATION, PROPOSAL, & CONTRACT
# CITY OF KIRKLAND

## TABLE OF CONTENTS – PROPOSAL

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information for Bidders</td>
<td>2</td>
</tr>
<tr>
<td>Bid Proposal</td>
<td>5</td>
</tr>
<tr>
<td>Bid Bond</td>
<td>14</td>
</tr>
<tr>
<td>Non-collusion Affidavit</td>
<td>15</td>
</tr>
<tr>
<td>Statement of Bidder's Qualifications</td>
<td>16</td>
</tr>
<tr>
<td>Subcontractor Identification</td>
<td>17</td>
</tr>
<tr>
<td>Bidder's Checklist</td>
<td>19</td>
</tr>
</tbody>
</table>
CITY OF KIRKLAND
INFORMATION FOR BIDDERS

Bidders must bid on all items contained in the proposal.

The omission or deletion of any bid item will be considered non-responsive and shall be cause for rejection of the bid.

Submit your proposal on the Bid Proposal and other forms which are enclosed, or make a copy of the required forms and submit these documents.

The following forms must be executed in full with submittal of the bid:

1. BIDDER RESPONSIBILITY CRITERIA CHECKLIST
2. SUBCONTRACTOR RESPONSIBILITY CRITERIA CHECKLIST
3. PROPOSAL
   The lump sum or unit prices must be shown in the spaces provided on the bid schedule.
   Show total bid price in both words and figures on the Proposal.
   The Proposal form must be completed in full, signed and dated.
4. BID BOND
   A surety issued bid bond must be executed by the bidder and its surety company. The amount of the bid bond shall be not less than five percent (5%) of the total amount bid and may be shown in dollars or on a percentage basis. (A cashier’s check payable to the City of Kirkland and issued for an amount not less than 5% of the total bid may be submitted in lieu of a bid bond.)
5. NONCOLLUSION AFFIDAVIT - Notarized
6. STATEMENT OF BIDDER'S QUALIFICATIONS
   This form must be filled in and signed. The owner reserves the right to check all statements and to judge the adequacy of the bidder's qualifications.
7. SUBCONTRACTOR IDENTIFICATION LIST
   This form must be completed for HVAC, plumbing, and electrical subcontractors if the estimate exceeds $1,000,000.

The following forms are to be executed after the contract is awarded:

1. CONTRACT
   This agreement is to be executed by the successful bidder.
2. PERFORMANCE AND PAYMENT BOND
   To be executed by the successful bidder and its surety company.
3. CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT OF STATUTORY RETAINED PERCENTAGE; RETAINED PERCENTAGE ESCROW AGREEMENT
   To be executed by the successful bidder based on bidder's selection of option.
4. CERTIFICATES OF INSURANCE
   To be executed by the successful bidder and by an acceptable insurance company. The City of Kirkland must be named as an additional insured.
5. STATEMENT(S) OF INTENT TO PAY PREVAILING WAGES
   Affidavit certifying all employees of Contractor and Subcontractor shall be paid no less than the Prevailing Wage Rate(s) as determined by the Industrial Statistician of the Washington State Department of Labor and Industries.

SPECIAL NOTE: Prior to commencing work, the contractor and all subcontractors must have applied and paid for a City of Kirkland business license
MUST BE SUBMITTED WITH PROPOSAL

CITY OF KIRKLAND
BIDDER RESPONSIBILITY CRITERIA

It is the intent of City to award a contract to the low responsible bidder. Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required by the City to submit documentation demonstrating compliance with the criteria. The bidder must:

☐ 1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal;

☐ 2. Have a current Washington Unified Business Identifier (UBI) number;

☐ 3. Have:
   a. Industrial Insurance (workers’ compensation) coverage for the bidder’s employees working in Washington, as required in Title 51 RCW;
   b. A Washington Employment Security Department number, as required in Title 50 RCW;
   c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;

☐ 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3). **Meet responsibility criteria in RCW 39.04.350**

☐ 5. Until December 31, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.

☐ 6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.
A. The Contractor shall include the language of this section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.

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

1. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;

2. Have a current Washington Unified Business Identifier (UBI) number;

3. Have:
   a) Industrial Insurance (workers’ compensation) coverage for the subcontractor’s employees working in Washington, as required in Title 51 RCW;
   b) A Washington Employment Security Department number, as required in Title 50 RCW;
   c) A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
   d) An electrical contractor license, if required by Chapter 19.28 RCW;
   e) An elevator contractor license, if required by Chapter 70.87 RCW.

4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3). Meet responsibility criteria in RCW 39.04.350

5. Until December 31, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.

6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.
CITY OF KIRKLAND
BID PROPOSAL

2019 STREET OVERLAY PROJECT
CIP NO. STC0060019/STC0060319
JOB NO. 02-19-PW

To: Director of Finance
City of Kirkland
123 Fifth Avenue
Kirkland, Washington 98033

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this proposal are those named herein; that this proposal is in all respects fair and without fraud; that it is made without collusion with any official or employee of the City of Kirkland, hereinafter called the Owner; and that the proposal is made without any connection or collusion with any person making another proposal on this contract.

The bidder further declares that it has carefully examined the contract documents for the construction of the project; that it has personally inspected the site; that it has satisfied itself as to the quantities involved, including materials and equipment and conditions of work involved, including the fact that the description of the quantities of work materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the contract documents; and that this proposal is made according to the provisions and under the terms of the contract documents, which documents are hereby made a part of this proposal.

The bidder further agrees that it has exercised its own judgment regarding the interpretation of subsurface information and has utilized all data which it believes pertinent from the engineer-architect, owner, and other sources in arriving at its conclusions.

The bidder agrees to hold its bid proposal open for 45 days after the actual date of bid opening and to accept the provisions of the Instructions to Bidders regarding disposition of bid bond.

The bidder agrees that if this proposal is accepted, it will, within ten (10) calendar days after notification of acceptance, execute the contract with the Owner in the form of contract included in the contract documents, and will, at the time of execution of the contract, deliver to the Owner the Performance and Payment Bond and all Certificates of Insurance required therein, and will, to the extent of its proposals, furnish all machinery, tools, apparatus, and other means of construction and do the work in the manner, in the time, and according to the methods as specified in the contract documents and required by the engineer or other project manager designated thereunder.

The bidder further agrees, if awarded the contract, to begin work within ten (10) calendar days after the date of the execution of the contract and to complete the construction within the time specified in Section 1-08.5 of the Special Provisions.

The Owner reserves the right to reject any and all bids, and to waive informalities in the building, and to make the award to the lowest, responsible, responsive bidder based on the total of Base Bid schedules. The Owner, at their discretion, may award any combination of schedules as the budget allows.
In the event the bidder is awarded the contract and shall fail to complete the work within the time limit or extended time limit agreed upon as more particularly set forth in the contract documents, liquidated damages shall be paid to the Owner per the specifications contained in the contract documents.

The bidder further proposes to accept as full payment for the work proposed herein, the amounts computed under the provisions of the contract documents and based upon the lump sum and unit price amounts entered by the bidder for the various bid items included in the Bid Schedule. The bidder further agrees the lump sum and unit prices entered for the various bid items included in the Bid Schedule include all use taxes, overhead, profit, bond premiums, insurance premiums and all other miscellaneous and incidental expenses as well as all costs of materials, labor, tools and equipment required to perform and complete the work.

Within the three-year period immediately preceding the date of the bid solicitation for this Project, bidder has not been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.

The undersigned bids and agrees to complete all construction of the **2019 STREET OVERLAY PROJECT; JOB NO. 02-19-PW** for the following:

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Subtotal Bid Price</th>
<th>Sales Tax (10.1%)</th>
<th>Total Bid Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule A</td>
<td>$________________</td>
<td>$. not applicable</td>
<td>$______________</td>
</tr>
<tr>
<td>Schedule B</td>
<td>$________________</td>
<td>$. not applicable</td>
<td>$______________</td>
</tr>
<tr>
<td>Schedule C</td>
<td>$________________</td>
<td>$. not applicable</td>
<td>$______________</td>
</tr>
<tr>
<td><strong>TOTAL OF SCHEDULES A, B, and C (Base Bid):</strong></td>
<td>$________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schedule D</td>
<td>$________________</td>
<td>$. not applicable</td>
<td>$______________</td>
</tr>
<tr>
<td><strong>TOTAL OF SCHEDULES A, B, C, and D:</strong></td>
<td>$________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total of Base Bid Schedules (Schedules A, B, and C) *(in words)*: ________________________________

Schedule D *(in words)*: ________________________________

Note: The determination of the lowest responsible and responsive bidder will be made on the base bid (Sum of Schedules A, B, and C). However, the City may award any combination of schedules as the budget allows. It is anticipated the combination of the schedules awarded will be approximately $1.6 million.

Receipt of Addenda No(s). _______________ is hereby acknowledged.

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct:
### MUST BE SUBMITTED WITH PROPOSAL

<table>
<thead>
<tr>
<th>CONTRACTOR (Firm Name)</th>
<th>Location or Place Executed: (City, State)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>By</td>
<td>Name and title of person signing</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>(Indicate whether Contractor is Partnership, Corporation, or Sole Proprietorship)</td>
<td>Date</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington State Contractor's Registration Number</td>
<td>Contractor's Industrial Insurance Account Number</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment Security Identification Number</td>
<td>Uniform Business Identification (UBI) Number</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor's Address:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Telephone Number</td>
</tr>
<tr>
<td></td>
<td>Fax Number</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Bid proposal to be submitted in a sealed envelope marked "Bid Enclosed" for 2019 STREET OVERLAY PROJECT, JOB NO. 02-19-PW.
CITY OF KIRKLAND  
BID SCHEDULE  
2019 STREET OVERLAY PROJECT  
JOB NO. 02-19-PW

*Note:* Unit prices for all items, all extensions, and the total amount of the bid must be shown.  
*All entries must be typed or entered in ink*

### SCHEDULE A - PROJECT WIDE BID ITEMS – PART OF BASE BID

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>SPEC REF</th>
<th>UNIT</th>
<th>EST QTY</th>
<th>UNIT PRICE</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>FLAGGERS AND SPOTTERS</td>
<td>1-10</td>
<td>HR</td>
<td>2,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>OTHER TRAFFIC CONTROL LABOR - OFF DUTY POLICE</td>
<td>1-10</td>
<td>HR</td>
<td>250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>SPCC PLAN</td>
<td>1-07</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>UTILITY POTHOLING</td>
<td>1-07</td>
<td>FA</td>
<td>1</td>
<td>$1,500.00</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>A5</td>
<td>EROSION/WATER POLLUTION CONTROL</td>
<td>8-01</td>
<td>FA</td>
<td>1</td>
<td>$1,000.00</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>A6</td>
<td>MINOR CHANGE</td>
<td>1-04</td>
<td>FA</td>
<td>1</td>
<td>$15,000.00</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>A7</td>
<td>ASPHALT COST PRICE ADJUSTMENT</td>
<td>5-04</td>
<td>CALC</td>
<td>1</td>
<td>$15,000.00</td>
<td>$15,000.00</td>
</tr>
</tbody>
</table>

Total Schedule A:________________________________________

### SCHEDULE B – 3RD STREET – PART OF BASE BID

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>SPEC REF</th>
<th>UNIT</th>
<th>EST QTY</th>
<th>UNIT PRICE</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>MOBILIZATION, CLEANUP &amp; DEMOBILIZATION</td>
<td>1-09</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>SHOULDER PREPARATION</td>
<td>2-01</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>REMOVING PAVEMENT MARKINGS &amp; MARKERS</td>
<td>8-22</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B4</td>
<td>PLANING BITUMINOUS PAVEMENT -FULL WIDTH - 3&quot; DEPTH</td>
<td>5-04</td>
<td>SY</td>
<td>14,934</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B5</td>
<td>PAVEMENT REPAIR EXCAVATION INCL. HAUL</td>
<td>5-04</td>
<td>SY</td>
<td>3,646</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B6</td>
<td>UNSCHEDULED PAVEMENT REPAIR</td>
<td>5-04</td>
<td>FA</td>
<td>1</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>B7</td>
<td>HMA FOR PAVEMENT REPAIR CL. 1/2&quot; PG58H-22</td>
<td>5-04</td>
<td>TN</td>
<td>822</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B8</td>
<td>HMA CL. 1/2&quot; PG58H-22 (3&quot; THICK)</td>
<td>5-04</td>
<td>TN</td>
<td>2,615</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B9</td>
<td>REMOVING ASPHALT Conc. FOR CONCRETE WORK</td>
<td>2-02</td>
<td>SY</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B10</td>
<td>REMOVING CEMENT Conc. CURB &amp; GUTTER</td>
<td>2-02</td>
<td>LF</td>
<td>261</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B11</td>
<td>REMOVING CEMENT Conc. SIDEWALK</td>
<td>2-02</td>
<td>SY</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Month</td>
<td>Unit</td>
<td>Quantity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B12</td>
<td>HMA CL. 1/2-INCH PG58H-22 FOR CURB PATCH</td>
<td>5-04</td>
<td>TN</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B13</td>
<td>CRUSHED SURFACING TOP COURSE FOR CONCRETE WORK</td>
<td>4-04</td>
<td>TN</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B14</td>
<td>CEMENT CONC. SIDEWALK</td>
<td>8-14</td>
<td>SY</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B15</td>
<td>CEMENT CONC. CURB RAMP</td>
<td>8-14</td>
<td>EA</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B16</td>
<td>CEMENT CONC. TRAFFIC CURB &amp; GUTTER</td>
<td>8-04</td>
<td>LF</td>
<td>261</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B17</td>
<td>CEMENT CONC. PEDESTRIAN CURB</td>
<td>8-04</td>
<td>LF</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B18</td>
<td>PROJECT TEMPORARY TRAFFIC CONTROL</td>
<td>1-10</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B19</td>
<td>RAISED PAVEMENT MARKER TYPE 2</td>
<td>8-09</td>
<td>HUN</td>
<td>1.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B20</td>
<td>RAISED PAVEMENT MARKER TYPE 2B</td>
<td>8-09</td>
<td>HUN</td>
<td>0.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B21</td>
<td>PAINT LINE</td>
<td>8-22</td>
<td>LF</td>
<td>3,100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B22</td>
<td>PLASTIC STOP LINE</td>
<td>8-22</td>
<td>SF</td>
<td>375</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B23</td>
<td>PLASTIC CROSSWALK LINE</td>
<td>8-22</td>
<td>SF</td>
<td>220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B24</td>
<td>PLASTIC TRAFFIC LETTER, 8'</td>
<td>8-22</td>
<td>EA</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B25</td>
<td>PLASTIC SPEED LEGEND BARS</td>
<td>8-22</td>
<td>SF</td>
<td>124</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B26</td>
<td>TEMPORARY PAVEMENT MARKING</td>
<td>8-23</td>
<td>LF</td>
<td>5,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B27</td>
<td>EDGE RESTORATION</td>
<td>8-91</td>
<td>LF</td>
<td>205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B28</td>
<td>TREE REMOVAL</td>
<td>2-02</td>
<td>EA</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B29</td>
<td>ADJUST MANHOLE - LOWERING</td>
<td>7-05</td>
<td>EA</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B30</td>
<td>ADJUST MANHOLE - RAISING</td>
<td>7-05</td>
<td>EA</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B31</td>
<td>ADJUST WATER VALVE BOX - LOWERING</td>
<td>7-12</td>
<td>EA</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B32</td>
<td>REPLACE WATER VALVE BOX</td>
<td>7-12</td>
<td>EA</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B33</td>
<td>ADJUST GAS VALVE BOX - LOWERING</td>
<td>8-90</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B34</td>
<td>ADJUST GAS VALVE BOX - RAISING</td>
<td>8-90</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B35</td>
<td>ADJUST MONUMENT CASE AND COVER - LOWERING</td>
<td>8-13</td>
<td>EA</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B36</td>
<td>ADJUST MONUMENT CASE AND COVER - RAISING</td>
<td>8-13</td>
<td>EA</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Schedule B:** ____________________________________________
# Schedule C - 116th Ave NE/NE 70th Place Intersection - Part of Base Bid

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Spec Ref</th>
<th>Unit</th>
<th>Est Qty</th>
<th>Unit Price</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Mobilization, Cleanup &amp; Demobilization</td>
<td>1-09</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>Shoulder Preparation</td>
<td>2-01</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>Removing Pavement Markings &amp; Markers</td>
<td>8-22</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>Planing Bituminous Pavement - Full Width - 3&quot; Depth</td>
<td>5-04</td>
<td>SY</td>
<td>3,643</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C5</td>
<td>Pavement Repair Excavation Incl. Haul</td>
<td>5-04</td>
<td>SY</td>
<td>741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C6</td>
<td>Unscheduled Pavement Repair</td>
<td>5-04</td>
<td>FA</td>
<td>1</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>C7</td>
<td>HMA for Pavement Repair Cl. 1/2&quot; PG58H-22</td>
<td>5-04</td>
<td>TN</td>
<td>167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C8</td>
<td>HMA Cl. 1/2&quot; PG58H-22 (3&quot; Thick)</td>
<td>5-04</td>
<td>TN</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C9</td>
<td>Removing Asphalt Conc. for Concrete Work</td>
<td>2-02</td>
<td>SY</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C10</td>
<td>Removing Cement Conc. Curb &amp; Gutter</td>
<td>2-02</td>
<td>LF</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C11</td>
<td>Removing Cement Conc. Sidewalk</td>
<td>2-02</td>
<td>SY</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C12</td>
<td>HMA Cl. 1/2-Inch PG58H-22 for Curb Patch</td>
<td>5-04</td>
<td>TN</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C13</td>
<td>Crushed Surfacing Top Course for Concrete Work</td>
<td>4-04</td>
<td>TN</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C14</td>
<td>Cement Conc. Sidewalk</td>
<td>8-14</td>
<td>SY</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C15</td>
<td>Cement Conc. Traffic Curb &amp; Gutter</td>
<td>8-04</td>
<td>LF</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C16</td>
<td>Replace Type 2 Junction Box</td>
<td>8-20</td>
<td>EA</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C17</td>
<td>Cement Concrete Extruded Curb</td>
<td>8-04</td>
<td>LF</td>
<td>205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C18</td>
<td>Cement Concrete Crack Repair</td>
<td>9-04</td>
<td>LF</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C19</td>
<td>Project Temporary Traffic Control</td>
<td>1-10</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C20</td>
<td>Video Signal Detection Installation</td>
<td>8-20</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C21</td>
<td>Traffic Signal Induction Loop - Type 3</td>
<td>8-20</td>
<td>EA</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C22</td>
<td>Raised Pavement Marker Type 2</td>
<td>8-09</td>
<td>HUN</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C23</td>
<td>Paint Line</td>
<td>8-22</td>
<td>LF</td>
<td>1,190</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C24</td>
<td>Painted Wide Line</td>
<td>8-22</td>
<td>LF</td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C25</td>
<td>Painted Bicycle Detection Symbol</td>
<td>8-22</td>
<td>EA</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C26</td>
<td>Plastic Stop Line</td>
<td>8-22</td>
<td>SF</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C27</td>
<td>Plastic Crosswalk Line</td>
<td>8-22</td>
<td>SF</td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C28</td>
<td>Plastic Traffic Arrow</td>
<td>8-22</td>
<td>EA</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Quantity</td>
<td>Unit</td>
<td>Quantity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------</td>
<td>----------</td>
<td>------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C29</td>
<td>PLASTIC BICYCLE LANE SYMBOL</td>
<td>8-22</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C30</td>
<td>4&quot; HATCH PAINT LINE - BUFFER LANE</td>
<td>8-22</td>
<td>EA</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C31</td>
<td>TEMPORARY PAVEMENT MARKING</td>
<td>8-23</td>
<td>LF</td>
<td>3,200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C32</td>
<td>EDGE RESTORATION</td>
<td>8-91</td>
<td>LF</td>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C33</td>
<td>ADJUST CATCH BASIN - LOWERING</td>
<td>7-05</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C34</td>
<td>ADJUST CATCH BASIN - RAISING</td>
<td>7-05</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C35</td>
<td>ADJUST WATER VALVE BOX - LOWERING</td>
<td>7-12</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C36</td>
<td>REPLACE WATER VALVE BOX</td>
<td>7-12</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Schedule C: ______________________________________

**TOTAL COMPUTED BASE BID PRICE:** $________________________

*Sum of Schedules A, B and C*
## SCHEDULE D - 84TH AVENUE NE/NE 132ND STREET

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>SPEC REF</th>
<th>UNIT</th>
<th>QTY</th>
<th>UNIT PRICE</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>MOBILIZATION, CLEANUP &amp; DEMOBILIZATION</td>
<td>1-09</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>SHOULDER PREPARATION</td>
<td>2-01</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>REMOVING PAVEMENT MARKINGS &amp; MARKERS</td>
<td>8-22</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>PLANING BITUMINOUS PAVEMENT - FULL WIDTH - 3&quot; DEPTH</td>
<td>5-04</td>
<td>SY</td>
<td>14,003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D5</td>
<td>PAVEMENT REPAIR EXCAVATION INCL. HAUL</td>
<td>5-04</td>
<td>SY</td>
<td>1977</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D6</td>
<td>UNSCHEDULED PAVEMENT REPAIR</td>
<td>5-04</td>
<td>FA</td>
<td>1</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>D7</td>
<td>REMOVING CEMENT CONCRETE EXTRUDED CURB</td>
<td>2-02</td>
<td>LF</td>
<td>848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D8</td>
<td>HMA FOR PAVEMENT REPAIR CL. 1/2&quot; PG58H-22</td>
<td>5-04</td>
<td>TN</td>
<td>446</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D9</td>
<td>HMA CL. 1/2&quot; PG58H-22 (3&quot; THICK)</td>
<td>5-04</td>
<td>TN</td>
<td>2,452</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D10</td>
<td>HMA DRAINAGE BERM</td>
<td>8-04</td>
<td>LF</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D11</td>
<td>HMA THICKENED EDGE</td>
<td>8-04</td>
<td>LF</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D12</td>
<td>PROJECT TEMPORARY TRAFFIC CONTROL</td>
<td>1-10</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D13</td>
<td>CEMENT CONCRETE EXTRUDED CURB</td>
<td>8-04</td>
<td>LF</td>
<td>900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D14</td>
<td>RAISED PAVEMENT MARKER TYPE 2</td>
<td>8-09</td>
<td>HUN</td>
<td>2.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D15</td>
<td>RAISED PAVEMENT MARKER TYPE 2B</td>
<td>8-09</td>
<td>HUN</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D16</td>
<td>PAINT LINE</td>
<td>8-22</td>
<td>LF</td>
<td>12,350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D17</td>
<td>PAINTED WIDE LINE</td>
<td>8-22</td>
<td>LF</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D18</td>
<td>PLASTIC STOP LINE</td>
<td>8-22</td>
<td>SF</td>
<td>137</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D19</td>
<td>PLASTIC CROSSWALK LINE</td>
<td>8-22</td>
<td>SF</td>
<td>1,240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D20</td>
<td>PLASTIC TRAFFIC ARROW</td>
<td>8-22</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D21</td>
<td>PLASTIC TRAFFIC LETTER, 8'</td>
<td>8-22</td>
<td>EA</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D22</td>
<td>PLASTIC BICYCLE LANE SYMBOL</td>
<td>8-22</td>
<td>EA</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D23</td>
<td>4&quot; HATCH PAINT LINE - BUFFER LANE</td>
<td>8-22</td>
<td>LF</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D24</td>
<td>TEMPORARY PAVEMENT MARKING</td>
<td>8-23</td>
<td>LF</td>
<td>10,450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D25</td>
<td>EDGE RESTORATION</td>
<td>8-91</td>
<td>LF</td>
<td>1,675</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D26</td>
<td>ADJUST MANHOLE - LOWERING</td>
<td>7-05</td>
<td>EA</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D27</td>
<td>ADJUST MANHOLE - RAISING</td>
<td>7-05</td>
<td>EA</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D28</td>
<td>ADJUST CATCH BASIN - LOWERING</td>
<td>7-05</td>
<td>EA</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D29</td>
<td>ADJUST CATCH BASIN - RAISING</td>
<td>7-05</td>
<td>EA</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D30</td>
<td>ADJUST WATER VALVE BOX - LOWERING</td>
<td>7-12</td>
<td>EA</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D31</td>
<td>ADJUST GAS VALVE BOX - LOWERING</td>
<td>8-90</td>
<td>EA</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D32</td>
<td>ADJUST GAS VALVE BOX - RAISING</td>
<td>8-90</td>
<td>EA</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D33</td>
<td>ADJUST CLEANOUT CASTING - LOWERING</td>
<td>7-19</td>
<td>EA</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D34</td>
<td>ADJUST CLEANOUT CASTING - RAISING</td>
<td>7-19</td>
<td>EA</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D35</td>
<td>ADJUST MONUMENT CASE AND COVER - LOWERING</td>
<td>8-13</td>
<td>EA</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D36</td>
<td>ADJUST MONUMENT CASE AND COVER - RAISING</td>
<td>8-13</td>
<td>EA</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D37</td>
<td>MONUMENT SURVEYING, REMOVE &amp; REPLACE</td>
<td>1-05</td>
<td>EA</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Schedule D:** ___________________________________________
BID DEPOSIT

Herewith find deposit in the form of a cashier’s check or certified check in the amount of $__________________ which amount is not less than five percent (5%) of the total bid.

SIGN HERE__________________________________

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, ______________________________________________________________, as Principal, and ______________________________________________________________, as Surety, are held and firmly bound unto the City of Kirkland, as Obligee, in the penal sum of $__________________ which sum is not less than five percent (5%) of the total bid, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for ______________________________________________________________  ______________________ Project Name Job Number

according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for faithful performance thereof, with Surety or Sureties approved by the Obligee; or if the Principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS _______________ DAY OF ________________, 20______.  

PRINCIPAL:  

____________________________________  

SURETY:  

____________________________________  

Note: If a Bid Bond is provided, it must be accompanied by a power of attorney which appoints the Surety’s true and lawful attorney-in-fact to make, execute, seal and deliver this Bid Bond.
CITY OF KIRKLAND
NONCOLLUSION AFFIDAVIT
2019 STREET OVERLAY PROJECT
CIP No. STC0060019/STC0060319
JOB NO. 02-19-PW

STATE OF WASHINGTON )
 ) SS
COUNTY OF KING )

The undersigned, being duly sworn, on oath deposes and says that the person(s), firm, association, partnership or corporation herein named has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.

Firm Name

Authorized Signature

Type Name

Title

Sworn to before me, this _____ day of ____________________, 20__.

Notary Public in and for the State of Washington
Residing at ______________________________
My Commission Expires ____________________

NOTICE TO ALL BIDDERS
To report bid 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., ET. 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.
CITY OF KIRKLAND
STATEMENT OF BIDDER’S QUALIFICATIONS

Contractor Name: ___________________________  Contact: ___________________________

Business Address: __________________________

Business phone: ____________________________  Fax: ____________________________

Number of years the Contractor has been engaged in the construction business under the present
firm name: __________________________________________

Describe the general character of work performed by your company: ____________________________

List five projects of a similar nature which Contractor has completed within the last 10 years. Include contract amount and contact information for references:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Amount</th>
<th>Owner/Agency</th>
<th>Contact</th>
<th>Phone</th>
<th>Year Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

List major equipment anticipated to be used on this project; indicate whether Contractor-owned
or to be leased from others: ____________________________

Bank reference(s): ____________________________

Washington State Contractor Registration No.: ____________________________

Uniform Business Identification No.: ____________________________

I certify that other contracts now in progress or hereafter obtained will not interfere with timely
performance of the City of Kirkland project should I become the successful bidder.

Authorized Signature: ____________________________

Print Name: ____________________________  Title: ____________________________
RCW 39.30.060 requires the following:

“Every invitation to bid on a prime contract that is expected to cost one million dollars or more for the construction, alteration, or repair of any public building or public work of the state or a state agency or municipality as defined under RCW 39.04.010 … shall require each prime contract bidder to submit as part of the bid, or within one hour after the published bid submittal time [see note below], the names of the subcontractors with whom the bidder, if awarded the contract, will subcontract for performance of the work of: HVAC (heating, ventilation, and air conditioning); plumbing as described in chapter 18.106 RCW; and electrical as described in chapter 19.28 RCW, or to name itself for the work. The prime contract bidder shall not list more than one subcontractor for each category of work identified, unless subcontractors vary with bid alternates, in which case the prime contract bidder must indicate which subcontractor will be used for which alternate. Failure of the prime contract bidder to submit as part of the bid the names of such subcontractors or to name itself to perform such work or the naming of two or more subcontractors to perform the same work shall render the prime contract bidder's bid non-responsive and, therefore, void.”

NOTE: The City of Kirkland has elected not to allow bidders to submit the information required by RCW 39.30.060 after the published bid submittal time. A proposal will be considered irregular and will be rejected if the bidder does not provide the above list as part of its proposal when submitting its bid.

Each bidder shall submit a list of:

1. HVAC, plumbing, and electrical subcontractors; and
2. The specific items of work those subcontractors will perform on the contract; and
3. The specific items of work that will be performed by the bidder on the contract.
CITY OF KIRKLAND
SUBCONTRACTOR IDENTIFICATION LIST

*REQUIRED IF ESTIMATE AMOUNT EXCEEDS $1,000,000 (Reference RCW 39.30.060 RCW)

Proposed Subcontractors and items of work to be performed:
Subcontractor Name: ________________________________________________
Item Numbers: ______________________________________________________
__________________________________________________________________
__________________________________________________________________
Subcontractor Name: ________________________________________________
Item Numbers: ______________________________________________________
__________________________________________________________________
__________________________________________________________________
Subcontractor Name: ________________________________________________
Item Numbers: ______________________________________________________
__________________________________________________________________
__________________________________________________________________
Subcontractor Name: ________________________________________________
Item Numbers: ______________________________________________________
__________________________________________________________________
__________________________________________________________________

- make additional pages if necessary -

Work to be performed by Prime Contractor:
Item Numbers: ______________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
CITY OF KIRKLAND
BIDDER’S CHECKLIST

1. Have you reviewed the Bidder Responsibility and Subcontractor Responsibility Criteria?
2. Have you enclosed a bid bond or certified check with your bid? (Must be at least 5% of the total amount bid)
3. Have you entered a bid amount for all items and all schedules?
4. Do the written amounts of the proposal agree with the amounts shown in the figures?
5. Have you acknowledged receipt of addenda?
6. Has the proposal been properly completed and signed?
7. Have you completed the Statement of Bidder’s Qualifications?
8. Have you completed the City of Kirkland Non-collusion Affidavit?
9. Have you completed the Subcontractor Identification List? (This is to be completed for HVAC, plumbing, and electrical subcontractors if the estimate amount exceeds $1,000,000.)
10. Bid proposal to be submitted in a sealed envelope marked "Bid Enclosed" for: 2019 STREET OVERLAY PROJECT, JOB NO. 02-19-PW.
The following form is a sample of what must be executed and submitted by the successful bidder within ten (10) calendar days following Notice of Award.
<table>
<thead>
<tr>
<th>Contract</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Bond</td>
<td>3</td>
</tr>
<tr>
<td>Labor, Material, and Tax Payment Bond</td>
<td>4</td>
</tr>
<tr>
<td>Contractor's Declaration of Option for Management of Statutory Retained Percentage</td>
<td>6</td>
</tr>
<tr>
<td>Retainage Bond</td>
<td>7</td>
</tr>
<tr>
<td>Retained Percentage Escrow Agreement</td>
<td>8</td>
</tr>
<tr>
<td>Retainage Release Requirements</td>
<td>11</td>
</tr>
</tbody>
</table>
CITY OF KIRKLAND
PUBLIC WORKS AGREEMENT
2019 STREET OVERLAY PROJECT
JOB NO. 02-19-PW

This agreement is made and entered into this ______ day of ___________ , 20____, by and between CONTRACTOR NAME, hereinafter called the "Contractor" and the City of Kirkland, hereinafter called the "Owner."

W I T N E S S E T H:

Whereas, pursuant to the invitation of the Owner extended through an officially published "Invitation to Bid," the Contractor did, in accordance therewith, file with the Owner a proposal containing an offer which was invited by said notice, and

Whereas, the Owner has heretofore determined that said offer was the lowest responsible bid submitted; now, therefore, it is agreed:

Section 1. That Contractor shall comply in every way with the requirements of those certain specifications entitled: "2019 STREET OVERLAY PROJECT, CIP NO. STC0060019/STC0060319, Job No. 02-19-PW."

The further terms, conditions and covenants of the contract are set forth in the following contract documents which are hereby made a part of this agreement by actual attachment or by this reference thereto as follows:

A. Any Invitation to Bid, as published by the Owner.

B. Any Specifications prepared for this project by the Owner and named above by title.

C. Any detailed Plans listed and described in said Specifications, together with those which may be issued as supplements thereof.

D. The bid proposals submitted by the Contractor as to those items and/or alternatives accepted by the Owner.

E. Any change orders, additions or deletions, if any, issued by the Owner.

Section 2. In consideration of faithful compliance with the terms and conditions of this agreement, whether set forth herein or incorporated by reference, the Owner shall pay to the Contractor, at the times and in the manner provided in said specifications, the total sum of _____________________ dollars ($_______) which sum is subject, however, to increase or decrease in such proportion as the quantities named in said proposal are so changed, all as in said specifications and proposal provided.

In witness whereof, said Contractor and said Owner have caused this agreement to be executed on the day and year first written above.

CONTRACTOR (Firm Name)

Signature of authorized officer __________________ Name and title of officer (print or type)
WA Contractor's Registration Number
Industrial Insurance Account Number

Uniform Business Identification (UBI) Number
Phone Number

(For corporations, LLC's and other legal entities)

STATE OF WASHINGTON )
COUNTY OF KING ) SS

On this day before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared ________________________________, to me known to be the ________________________________ of ______________________, the legal entity that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said legal entity, for the uses and purposes therein set forth, and on oath stated that he/she was authorized to sign said instrument.

Given under my hand and official seal this ______ day of ________________, 2____.

__________________________________
Print Name: ________________________
NOTARY PUBLIC in and for the State of Washington, residing __________
Commission expires: __________

(For individuals and d/b/a's)

STATE OF WASHINGTON )
COUNTY OF KING ) SS

On this day before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared ________________________________, and ________________________________, to me known to be the individual(s) described herein and who executed the foregoing instrument, and acknowledged that he/she/they signed the same as his/her/their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this _____ day of ________________, 2____.

__________________________________
Print Name: ________________________
NOTARY PUBLIC in and for the State of Washington, residing __________
Commission expires: __________

CITY OF KIRKLAND

BY: 
Tracey Dunlap, Deputy City Manager
PERFORMANCE BOND

Surety to have an A.M. Best rating of A-:VII or better.

Bond No. ___________________________

KNOW ALL PERSONS BY THESE PRESENTS, that CONTRACTOR NAME, as Principal, and _______________________________, (insert name of surety), as Surety, a corporation duly organized under the laws of the State of ______________, (insert Surety's state of incorporation), and authorized to do business as a surety in the State of Washington, are held and firmly bound unto the City of Kirkland (City) in the sum of ____________________________ dollars ($ _________), lawful money of the United States of America, plus the total amount of extra orders issued by the City to the Principal pursuant to the terms of the Contract referred to in the next succeeding paragraph hereof, for the payment whereof Principal and Surety bind ourselves, and our heirs, executors, administrators, representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has been awarded, and is about to enter into, a written Contract with the City for 2019 Street Overlay Project, Job #02-19-PW, which is hereby made a part of this bond as if fully set forth herein;

NOW, THEREFORE, the condition of this bond is such that:

1. If the Principal shall completely and faithfully perform all of its obligations under the Contract, including any warranties required thereunder, and all modifications, amendments, additions, and alterations thereto, including modifications which increase the contract price or time for completion, with or without notice to the surety; and

2. If the Principal shall indemnify and hold the City harmless from any and all losses, liability, damages, claims, judgments, liens, costs, and fees of any type that the City may be subject to because of the failure or default of the Principal in the performance of any of the terms, conditions, or obligations of the Contract, including all modifications, amendments, additions, and alterations thereto, and any warranties required thereunder;

THEN THIS obligation shall be null and void; otherwise to remain in full force and effect. If the City shall declare Principal to be in default of the Contract, and shall so notify Surety, Surety shall, within a reasonable time which shall not exceed 14 days, except for good cause shown, notify the City in writing of the manner in which surety will satisfy its obligations under this Bond.

Nonpayment of the Bond premium will not invalidate this Bond nor shall the City be obligated for the payment thereof. The Surety hereby waives notice of any modification of the Contract or extension of time made by the City.

Signed this _________ day of _______________________, 2______.

Principal: ___________________________  Surety: ___________________________

By: _______________________________  By: _______________________________

Title: _____________________________  Title: _____________________________

Address: ___________________________  Address: ___________________________

City/Zip: ___________________________  City/Zip: ___________________________

Telephone: ( ) _____________________  Telephone: ( ) _____________________

Note: A power of attorney must be provided which appoints the Surety's true and lawful attorney-in-fact to make, execute, seal and deliver this performance bond.
LABOR, MATERIAL AND TAXES PAYMENT BOND
Surety to have an A.M. Best rating of A-:VII or better.

Bond No. ________________________________________________

KNOW ALL PERSONS BY THESE PRESENTS, that, CONTRACTOR NAME, as Principal, and ________________________________, (insert name of surety), as Surety, a corporation duly organized under the laws of the State of ________________ (insert name of Surety's state of incorporation), and authorized to do business as a surety in the State of Washington, are held and firmly bound unto the City of Kirkland (City) for the use and benefit of claimants as hereinafter defined, in the sum of ________________________________ Dollars ($__________), lawful money of the United States of America, plus the total amount of any extra orders issued by the City, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has been awarded, and is about to enter into, a Contract with City of Kirkland for 2019 Street Overlay Project, Job #02-19-PW, which contract is by this reference made a part hereof;

WHEREAS, the contract is a public works contract, subject to the provisions of RCW Titles 39 and 60;

NOW, THEREFORE, the conditions of this obligation are such that, if the Principal shall promptly make payment to all claimants as hereinafter defined, for (a) all labor and material used or reasonably required for use in the performance of the contract and (b) all taxes, increases, and penalties incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due, then this obligation shall be void; otherwise, it shall remain in full force and effect, subject, however, to the following conditions:

A claimant is defined as and includes (a) a person claiming to have supplied labor or materials for the prosecution of the work provided for in the contract, including any person having direct contractual relationship with the contractor furnishing the bond or direct contractual relationship with any subcontractor, or an assignee of such person, (b) the state with respect to taxes incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due and (c) any other person or entity as allowed or required by law.

3. The Principal and Surety hereby jointly and severally agree with the City that every claimant as herein defined, who has not been paid in full prior to Final Acceptance of the project, or materials were furnished by such claimant, has an action on this bond for such sum or sums as may be justly due claimant, and may have execution thereon. The City shall not be liable for the payment of any costs or expenses of any such suit or action.

(Form continues on next page)
4. No suit or action shall be commenced hereunder by any claimant (except the state with respect to taxes, increases, and penalties incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due) unless the claimant has sent the written notice required under RCW Title 39 to the Principal and to the City’s Purchasing Agent by registered or certified mail, or by hand delivery, no later than 30 days after Final Acceptance of the Project.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics’ liens which may be filed of record against the improvement, whether or not claim for the amount of such lien be presented under and against this bond.

The Surety hereby waives notice of any modification of the contract or extension of time made by the City.

Signed this __________________ day of __________________ , 2____

Principal: ________________________ Surety: ____________________________

By: ______________________________ By: ________________________________

Title: ______________________________ Title: ____________________________

Address: __________________________ Address: __________________________

City/Zip: __________________________ City/Zip: __________________________

Telephone: ( ) ______________________ Telephone: ( ) ____________________

Note: A power of attorney must be provided which appoints the Surety’s true and lawful attorney-in-fact to make, execute, seal and deliver this performance bond.

END OF LABOR, MATERIAL AND TAXES PAYMENT BOND FORM
CITY OF KIRKLAND
CONTRACTOR’S DECLARATION OF OPTION FOR MANAGEMENT
OF STATUTORY RETAINED PERCENTAGE
2019 STREET OVERLAY PROJECT
CIP NO. STC0060019/STC0060319
JOB NO. 02-19-PW

Monies reserved under provisions of Chapter 60.28 RCW, at the option of the Contractor, shall be:

Select One

[ ] (1) Retained in a fund by the City. No interest will be earned on the retained percentage amount under this election.

[ ] (2) Retainage Bond

[ ] (3) Placed in escrow with a bank or trust company by the City. When the monies reserved are to be placed in escrow, the City will issue a check representing the sum of the monies reserved payable to the bank or trust company and the Contractor jointly. Such check shall be converted into bonds and securities chosen by the Contractor and approved by the City and the bonds and securities held in escrow. (For the convenience of those Contractors choosing option (3) a City approved Form of Escrow Agreement is included on the next page and should be completed and submitted with the executed contract.)

The Contractor in choosing option (3) agrees to assume full responsibility to pay all costs which may accrue from escrow services, brokerage charges or both, and further agrees to assume all risks in connection with the investment of the retained percentages in securities.

[ ] (4) Deposited by the City in an interest-bearing account at the FDIC insured bank currently providing contracted banking services to the City of Kirkland. Interest on such account shall be paid to the contractor. Any fees incurred shall be the responsibility of the contractor.

CONTRACTOR:

Signature: __________________________________________

Print or Type Name: ________________________________

Title: ____________________________________________

Date: ____________________________________________
RETAINEAGE BOND
RETURN THIS FORM IF RETAINAGE BOND OPTION IS SELECTED

<table>
<thead>
<tr>
<th>Contract Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Number</td>
<td></td>
</tr>
<tr>
<td>Contractor Name</td>
<td></td>
</tr>
</tbody>
</table>

The Undersigned, ________________________________________, existing under and by virtue of the laws of the State of Washington and authorized to do business in the State of Washington as Principal, and ________________________________________, organized and existing under the laws of the State of ________________ and authorized to transact business in the State of Washington as Surety, are jointly and severally held and bound unto __________________, hereinafter called Obligee, and are similarly held and bound unto the beneficiaries of the trust fund created by RCW 60.28, in the penal sum of $(_____________), Which is 5% of the principal’s price on Contract ID_____________.

WHEREAS, on the ______ day of ______, 2__, the said principal herein executed a contract with the Obligee, for the Contract specified above, Contract ID Number______.

WHEREAS, said contract and RCW 60.28 require the Obligee to withhold from the Principal the sum of ___% from monies earned on estimates during the progress of the construction, herein after referred to as earned retained funds.

NOW WHEREAS, Principal has requested that the Obligee not retain any earned retained funds as allowed under RCW 60.28.

NOW THEREFORE, the condition of the obligation is such that the Principal and Surety are held and bound unto the beneficiaries of the trust fund created by RCW 60.28 in the penal sum of ____________ percent (___%) of the final contract cost which shall include any increases due to change orders, increases in quantities of work or the addition of any new item of work. If the Principal shall use the earned retained funds, which will not be retained, for the trust fund purposes of RCW 60.28, then this obligation shall be null and void; otherwise, it shall remain in full force and effect until release is authorized in writing by the Obligee. This bond and any proceeds therefrom shall be made subject to all claims and liens and in the same manner and priority as set forth for retained percentages in RCW 60.28.

PROVIDED HOWEVER, that:

1. The liability of the surety under this bond shall not exceed 5% or 50% of the total amount earned by the Principal if no monies are retained by the Obligee on estimates during the progress of construction.
2. Any suit under this bond must be instituted within the time provided by applicable law.

Witness our hands this ______ day of ______________, 2__.

SURETY

By: ____________________________
Name/Title

OF: ____________________________

Surety Name and Local Office of Agent:

Surety Address and Phone of Local Office and Agent:

PRINCIPAL

By: ____________________________
Name/Title

OF: ____________________________

__________________________________________________________________________
CITY OF KIRKLAND
RETAINED PERCENTAGE ESCROW AGREEMENT
2019 STREET OVERLAY PROJECT
CIP NO. STC0060019/STC0060319
JOB NO. 02-19-PW

Escrow No. ________________________________

City of Kirkland
123 Fifth Avenue
Kirkland, Washington  98033

Contractor: ________________________________
Address: ________________________________

Project Description: ________________________________

______________________________

TO:  Escrow Bank or Trust Company:
Name: ________________________________
Address: ________________________________

Attention: ________________________________

The undersigned, _____________________________________________, herein referred to as the Contractor, has directed the City of Kirkland to deliver to you its warrants, which shall be payable to you and the Contractor jointly. Such warrants are to be held and disposed of by you in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

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

2.  When and as interest on the securities held by you pursuant to this agreement accrues and is paid, you shall collect such interest and forward it to the Contractor at its address designated below unless otherwise directed by the Contractor.
3. You are not authorized to deliver to the Contractor all or any part of the securities held by you pursuant to this agreement (or any moneys derived from the sale of such securities, or the negotiation of the City of Kirkland’s warrants) except in accordance with written instructions from the City of Kirkland. Compliance with such instructions shall relieve you of any further liability related thereto. The estimated completion date on the contract underlying this Escrow Agreement is _______________________.

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

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

5. This agreement shall not be binding until executed by the Contractor and the City of Kirkland and accepted by you.

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

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

8. The Contractor's Federal Income Tax Identification number is _______________________.

** Please note: Written release will be issued by the Director of Finance & Administration. For further information, contact the Purchasing Agent at (425) 587-3123.
The undersigned have read and hereby approve the instructions as given above governing the administration of this escrow and do hereby execute this agreement on this _____ day of ____________________, 2____.

CONTRACTOR:                    CITY OF KIRKLAND:

By: ___________________________   By: ___________________________
  Signature                        Signature

  _______________________________   _______________________________
  Print or Type Name                Print or Type Name

  _______________________________   _______________________________
  Title                            Title

Address: _________________________   123 Fifth Avenue
                                            Kirkland, Washington 98033

The above escrow instructions received and accepted this _____ day of ____________________, 2____.

ESCROW BANK OR TRUST CO:

    _______________________________

By: ___________________________
    Authorized Signature

  _______________________________
  Print or Type Name

  _______________________________
  Title

Securities Authorized by City of Kirkland (select one):

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

RETURN THIS SIGNED AGREEMENT TO:

City of Kirkland
  Attn: Purchasing Agent
  123 Fifth Avenue
  Kirkland, Washington 98033

H:\PwCIP group\Project Files\ST\CST0006\STC0060019\Overlay\Design\Bid Documents\Pages\02-19-PW Contract.docx

CONTRACT - Page 10
CITY OF KIRKLAND
RETAINAGE RELEASE REQUIREMENTS

DOCUMENTS REQUIRED TO BE ON FILE PRIOR TO RELEASE OF RETAINAGE

1. Intent to Pay Prevailing Wage (Contractor must generate including for subcontractors)
   Department of Labor/Industries
   Employment Standards Division
   General Administration Building
   Olympia, Washington 98504
   (360) 956-5335

2. Notice of Completion of Public Works Contract (City generates)
   Department of Revenue
   Excise Tax Division
   Olympia, Washington 98504

3. Affidavit of Wages Paid (Contractor must generate including for subcontractors)
   Department of Labor/Industries

4. Certificate of Release - State Excise Tax by Public Works Contractor (Letter from State to City)
   Department of Revenue
   Department of Labor and Industries
   Employment Security Department

5. Receipt for Payment in full or Release of Lien signed by Lien Claimant and filed with City (Responsibility of Contractor to obtain)
   Claims against retainage or Payment Bond filed with City by any such subcontractor, workman, or material supplier.

6. Current insurance certificate through retainage release (Contractor generates)

7. Produce final invoice for retainage if bond is not selected (Contractor generates)
AMENDMENTS TO THE
STANDARD
SPECIFICATIONS
INTRO.AP1

INTRODUCTION

The following Amendments and Special Provisions shall be used in conjunction with the 2018 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.

1-01.AP1
Section 1-01, Definitions and Terms
August 6, 2018

1-01.3 Definitions
The following new term and definition is inserted before the definition for “Shoulder”:

Sensitive Area – Natural features, which may be previously altered by human activity, that are present on or adjacent to the project location and protected, managed, or regulated by local, tribal, state, or federal agencies.

The following new term and definition is inserted after the definition for “Working Drawings”:

WSDOT Form – Forms developed and maintained by WSDOT that are required or available for use on a project. These forms can be downloaded from the forms catalogue at:

http://wsdot.wa.gov/forms/pdfForms.html

1-02.AP1
Section 1-02, Bid Procedures and Conditions
October 30, 2018

1-02.4(1) General
This section is supplemented with the following:

Prospective Bidders are advised that the Contracting Agency may include a partially completed Washington State Department of Ecology (Ecology) Transfer of Coverage (Ecology Form ECY 020-87a) for the Construction Stormwater General Permit (CSWGP) as part of the Bid Documents. When the Contracting Agency requires the transfer of coverage of the CSWGP to the Contractor, an informational copy of the Transfer of Coverage and the associated CSWGP will be included in the appendices. As a condition of Section 1-03.3, the Contractor is required to complete sections I, III, and VIII of the Transfer of Coverage and return the form to the Contracting Agency.
The Contracting Agency is responsible for compliance with the CSWGP until the end of the day that the Contract is executed. Beginning on the day after the Contract is executed, the Contractor shall assume complete legal responsibility for compliance with the CSWGP and full implementation of all conditions of the CSWGP as they apply to the Contract Work.

1-02.5 Proposal Forms
The first sentence of the first paragraph is revised to read:

At the request of a Bidder, the Contracting Agency will provide a physical Proposal Form for any project on which the Bidder is eligible to Bid.

1-02.6 Preparation of Proposal
Item number 1 of the second paragraph is revised to read:

1. A unit price for each item (omitting digits more than two places to the right of the decimal point),

In the third sentence of the fourth paragraph, “WSDOT Form 422-031” is revised to read “WSDOT Form 422-031U”.

The following new paragraph is inserted before the last paragraph:

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form (WSDOT Form 272-009). Failure to return this certification as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

1-03.AP1
Section 1-03, Award and Execution of Contract
January 2, 2018

1-03.3 Execution of Contract
The first paragraph is revised to read:

Within 20 calendar days after the Award date, the successful Bidder shall return the signed Contracting Agency-prepared Contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided, and shall be registered as a contractor in the state of Washington.

1-03.5 Failure to Execute Contract
The first sentence is revised to read:

Failure to return the insurance certification and bond with the signed Contract as required in Section 1-03.3, or failure to provide Disadvantaged, Minority or Women’s Business Enterprise information if required in the Contract, or failure or refusal to sign the Contract, or failure to register as a contractor in the state of Washington, or failure to return the completed Transfer of Coverage for the Construction Stormwater General Permit,
Permit to the Contracting Agency when provided shall result in forfeiture of the proposal bond or deposit of this Bidder.

1-05.AP1

Section 1-05, Control of Work
August 6, 2018

1-05.5 Vacant

This section, including title, is revised to read:

1-05.5 Tolerances
Geometrical tolerances shall be measured from the points, lines, and surfaces defined in Contract documents.

A plus (+) tolerance increases the amount or dimension to which it applies, or raises a deviation from level. A minus (-) tolerance decreases the amount or dimension to which it applies, or lowers a deviation from level. Where only one signed tolerance is specified (+ or -), there is no specified tolerance in the opposing direction.

Tolerances shall not be cumulative. The most restrictive tolerance shall control.

Tolerances shall not extend the Work beyond the Right of Way or other legal boundaries identified in the Contract documents. If application of tolerances causes the extension of the Work beyond the Right of Way or legal boundaries, the tolerance shall be reduced for that specific instance.

Tolerances shall not violate other Contract requirements. If application of tolerances causes the Work to violate other Contract requirements, the tolerance shall be reduced for that specific instance. If application of tolerances causes conflicts with other components or aspects of the Work, the tolerance shall be reduced for that specific instance.

1-05.9 Equipment
The following new paragraph is inserted before the first paragraph:

Prior to mobilizing equipment on site, the Contractor shall thoroughly remove all loose dirt and vegetative debris from drive mechanisms, wheels, tires, tracks, buckets and undercarriage. The Engineer will reject equipment from the site until it returns clean.

This section is supplemented with the following:

Upon completion of the Work, the Contractor shall completely remove all loose dirt and vegetative debris from equipment before removing it from the job site.

1-06.AP1

Section 1-06, Control of Material
January 7, 2019

1-06.1(3) Aggregate Source Approval (ASA) Database
This section is supplemented with the following:
Regardless of status of the source, whether listed or not listed in the ASA database the source owner may be asked to provide testing results for toxicity in accordance with Section 9-03.21(1).

1-06.2(2)D Quality Level Analysis
This section is supplemented with the following new subsection:

1-06.2(2)D5 Quality Level Calculation – HMA Compaction
The procedures for determining the quality level and pay factor for HMA compaction are as follows:

1. Determine the arithmetic mean, $X_m$, for compaction of the lot:

$$X_m = \frac{\sum x}{n}$$

Where:
- $x =$ individual compaction test values for each sublot in the lot.
- $\sum x =$ summation of individual compaction test values
- $n =$ total number test values

2. Compute the sample standard deviation, "S", for each constituent:

$$S = \left[ \frac{n\sum x^2 - (\sum x)^2}{n(n-1)} \right]^{\frac{1}{2}}$$

Where:
- $\sum x^2 =$ summation of the squares of individual compaction test values
- $(\sum x)^2 =$ summation of the individual compaction test values squared

3. Compute the lower quality index ($Q_L$):

$$Q_L = \frac{X_m - LSL}{S}$$

Where:
- $LSL =$ 92.0

4. Determine $P_L$ (the percent within the lower Specification limit which corresponds to a given $Q_L$) from Table 1. For negative values of $Q_L$, $P_L$ is equal to 100 minus the table $P_L$. If the value of $Q_L$ does not correspond exactly to a figure in the table, use the next higher value.

5. Determine the quality level (the total percent within Specification limits):

$$\text{Quality Level} = P_L$$

6. Using the quality level from step 5, determine the composite pay factor (CPF) from Table 2.
7. If the CPF determined from step 6 is 1.00 or greater: use that CPF for the compaction lot; however, the maximum HMA compaction CPF using an LSL = 92.0 shall be 1.05.

8. If the CPF from step 6 is not 1.00 or greater: repeat steps 3 through 6 using an LSL = 91.5. The value thus determined shall be the HMA compaction CPF for that lot; however, the maximum HMA compaction CPF using an LSL = 91.5 shall be 1.00.

1-06.2(2)D1 Quality Level Analysis
The following new sentence is inserted after the first sentence:

The quality level calculations for HMA compaction are completed using the formulas in Section 1-06.2(2)D5.

1-06.2(2)D4 Quality Level Calculation
The first paragraph (excluding the numbered list) is revised to read:

The procedures for determining the quality level and pay factors for a material, other than HMA compaction, are as follows:

1-06.6 Recycled Materials
The first three sentences of the second paragraph are revised to read:

The Contractor shall submit a Recycled Material Utilization Plan on WSDOT Form 350-075A within 30 calendar days after the Contract is executed. The plan shall provide the Contractor’s anticipated usage of recycled concrete aggregates for meeting the requirements of these Specifications. The quantity of recycled concrete aggregate will be provided in tons and as a percentage of the Plan quantity for eligible material listed in Section 9-03.21(1)E Table on Maximum Allowable percent (By Weight) of Recycled Material.

The last paragraph is revised to read:

Within 30 calendar days after Physical Completion, the Contractor shall report the quantity of recycled concrete aggregates that were utilized in the construction of the project for each eligible item listed in Section 9-03.21(1)E. The Contractor’s report shall be provided on WSDOT Form 350-075A, Recycled Materials Reporting.

1-06.6(1)A General
Item 1(a) in the second paragraph is revised to read:

a. The estimated costs for the Work for each material with 25 percent recycled concrete aggregate. The cost estimate shall include for each material a documented price quote from the supplier with the lowest total cost for the Work.
Section 1-07, Legal Relations and Responsibilities to the Public
April 1, 2019

1-07.5 Environmental Regulations

This section is supplemented with the following new subsections:

1-07.5(5) U.S. Army Corps of Engineers

When temporary fills are permitted, the Contractor shall remove fills in their entirety and the affected areas returned to pre-construction elevations.

If a U.S. Army Corps of Engineers permit is noted in Section 1-07.6 of the Special Provisions, the Contractor shall retain a copy of the permit or the verification letter (in the case of a Nationwide Permit) on the worksite for the life of the Contract. The Contractor shall provide copies of the permit or verification letter to all subcontractors involved with the authorized work prior to their commencement of any work in waters of the U.S.

1-07.5(6) U.S. Fish/Wildlife Services and National Marine Fisheries Service

The Contracting Agency will provide fish exclusion and handling services if the Work dictates. However, if the Contractor discovers any fish stranded by the project and a Contracting Agency biologist is not available, they shall immediately release the fish into a flowing stream or open water.

1-07.5(1) General

The first sentence is deleted and replaced with the following:

No Work shall occur within areas under the jurisdiction of resource agencies unless authorized in the Contract.

The third paragraph is deleted.

1-07.5(2) State Department of Fish and Wildlife

This section is revised to read:

In doing the Work, the Contractor shall:

1. Not degrade water in a way that would harm fish, wildlife, or their habitat.
2. Not place materials below or remove them from the ordinary high water line except as may be specified in the Contract.
3. Not allow equipment to enter waters of the State except as specified in the Contract.
4. Revegetate in accordance with the Plans, unless the Special Provisions permit otherwise.
5. Prevent any fish-threatening silt buildup on the bed or bottom of any body of water.
7. Dispose of any project debris by removal, burning, or placement above high-
water flows.

8. Immediately notify the Engineer and stop all work causing impacts, if at any
time, as a result of project activities, fish are observed in distress or a fish kill occurs.

If the Work in (1) through (3) above differs little from what the Contract requires, the
Contracting Agency will measure and pay for it at unit Contract prices. But if Contract
items do not cover those areas, the Contracting Agency will pay pursuant to Section 1-
09.4. Work in (4) through (8) above shall be incidental to Contract pay items.

1-07.5(3) State Department of Ecology

This section is revised to read:

In doing the Work, the Contractor shall:


2. Perform Work in such a manner that all materials and substances not
specifically identified in the Contract documents to be placed in the water do
not enter waters of the State, including wetlands. These include, but are not
limited to, petroleum products, hydraulic fluid, fresh concrete, concrete
wastewater, process wastewater, slurry materials and waste from shaft drilling,
seeds, sediment-laden water, chemicals, paint, solvents, or other toxic or
deleterious materials.

3. Use equipment that is free of external petroleum-based products.

4. Remove accumulations of soil and debris from drive mechanisms (wheels,
tracks, tires) and undercarriage of equipment prior to using equipment below
the ordinary high water line.

5. Clean loose dirt and debris from all materials placed below the ordinary high
water line. No materials shall be placed below the ordinary high water line
without the Engineer’s concurrence.

6. When a violation of the Construction Stormwater General Permit (CSWGP)
occurs, immediately notify the Engineer and fill out WSDOT Form 422-011,
Contractor ECAP Report, and submit the form to the Engineer within 48 hours
of the violation.

7. Once Physical Completion has been given, prepare a Notice of Termination
( Ecology Form ECY 020-87) and submit the Notice of Termination
electronically to the Engineer in a PDF format a minimum of 7 calendar days
prior to submitting the Notice of Termination to Ecology.

8. Transfer the CSWGP coverage to the Contracting Agency when Physical
Completion has been given and the Engineer has determined that the project
site is not stabilized from erosion.
9. Submit copies of all correspondence with Ecology electronically to the Engineer in a PDF format within four calendar days.

1-07.5(4) Air Quality
This section is revised to read:

The Contractor shall comply with all regional clean air authority and/or State Department of Ecology rules and regulations.

The air quality permit process may include additional State Environment Policy Act (SEPA) requirements. Contractors shall contact the appropriate regional air pollution control authority well in advance of beginning Work.

When the Work includes demolition or renovation of any existing facility or structure that contains Asbestos Containing Material (ACM) and/or Presumed Asbestos-Containing Material (PACM), the Contractor shall comply with the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Any requirements included in Federal and State regulations regarding air quality that applies to the “owner or operator” shall be the responsibility of the Contractor.

1-07.7(1) General
The first sentence of the third paragraph is revised to read:

When the Contractor moves equipment or materials on or over Structures, culverts or pipes, the Contractor may operate equipment with only the load-limit restrictions in Section 1-07.7(2).

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

Unit prices shall cover all costs for operating over Structures, culverts and pipes.

1-07.9(1) General
The last sentence of the sixth paragraph is revised to read:

Generally, the Contractor initiates the request by preparing standard form 1444 Request for Authorization of Additional Classification and Rate, available at https://www.dol.gov/whd/recovery/dbsurvey/conformance.htm, and submitting it to the Engineer for further action.

1-07.9(2) Posting Notices
The second sentence of the first paragraph (up until the colon) is revised to read:

The Contractor shall ensure the most current edition of the following are posted:

The revision dates are deleted from all items in the numbered list.

The following new items are inserted after item number 1:

   Post for projects with federal-aid funding.

Item number 2 through 12 are renumbered to 4 through 14, respectively.

**1-07.11(2) Contractual Requirements**

In this section, "creed" is revised to read "religion".

Item numbers 1 through 9 are revised to read 2 through 10, respectively.

After the preceding Amendment is applied, the following new item number 1 is inserted:

1. The Contractor shall maintain a Work site that is free of harassment, humiliation, fear, hostility and intimidation at all times. Behaviors that violate this requirement include but are not limited to:

   a. Persistent conduct that is offensive and unwelcome.
   
   b. Conduct that is considered to be hazing.
   
   c. Jokes about race, gender, or sexuality that are offensive.
   
   d. Unwelcome, unwanted, rude or offensive conduct or advances of a sexual nature which interferes with a person’s ability to perform their job or creates an intimidating, hostile, or offensive work environment.
   
   e. Language or conduct that is offensive, threatening, intimidating or hostile based on race, gender, or sexual orientation.
   
   f. Repeating rumors about individuals in the Work Site that are considered to be harassing or harmful to the individual’s reputation.

**1-07.11(5) Sanctions**

This section is supplemented with the following:

Immediately upon the Engineer’s request, the Contractor shall remove from the Work site any employee engaging in behaviors that promote harassment, humiliation, fear or intimidation including but not limited to those described in these specifications.

**1-07.11(6) Incorporation of Provisions**

The first sentence is revised to read:

The Contractor shall include the provisions of Section 1-07.11(2) Contractual Requirements (1) through (5) and the Section 1-07.11(5) Sanctions in every subcontract including procurement of materials and leases of equipment.

**1-07.15(1) Spill Prevention, Control, and Countermeasures Plan**

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

1-07.16(2)A Wetland and Sensitive Area Protection

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

Existing wetland and other sensitive areas, where shown in the Plans or designated by the Engineer, shall be saved and protected through the life of the Contract.

1-07.18 Public Liability and Property Damage Insurance

Item number 1 is supplemented with the following new sentence:

This policy shall be kept in force from the execution date of the Contract until the Physical Completion Date.

1-08.AP1

Section 1-08, Prosecution and Progress

1-08.1 Subcontracting

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

All Work that is not performed by the Contractor will be considered as subcontracting except: (1) purchase of sand, gravel, crushed stone, crushed slag, batched concrete aggregates, ready-mix concrete, off-site fabricated structural steel, other off-site fabricated items, and any other materials supplied by established and recognized commercial plants; or (2) delivery of these materials to the Work site in vehicles owned or operated by such plants or by recognized independent or commercial hauling companies hired by those commercial plants.

The following new paragraph is inserted after the seventh paragraph:

The Contractor shall not use businesses (material suppliers, vendors, subcontractors, etc.) with federal purchasing exclusions. Businesses with exclusions are identified using the System for Award Management web page at www.SAM.gov.

1-08.5 Time for Completion

Item number 2 of the sixth paragraph is supplemented with the following:

f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).

1-08.7 Maintenance During Suspension

The fifth paragraph is revised to read:

The Contractor shall protect and maintain all other Work in areas not used by traffic. All costs associated with protecting and maintaining such Work shall be the responsibility of the Contractor.
1-09.AP1

Section 1-09, Measurement and Payment
August 6, 2018

1-09.2(1) General Requirements for Weighing Equipment
The last paragraph is supplemented with the following:
When requested by the Engineer, the Contractor’s representative shall collect the
tickets throughout the day and provide them to the Engineer’s designated receiver, not
later than the end of shift, for reconciliation. Tickets for loads not verified as delivered
will receive no pay.

1-09.2(2) Specific Requirements for Batching Scales
The last sentence of the first paragraph is revised to read:
Batching scales used for concrete or hot mix asphalt shall not be used for batching
other materials.

1-09.10 Payment for Surplus Processed Materials
The following sentence is inserted after the first sentence of the second paragraph:
For Hot Mix Asphalt, the Plan quantity and quantity used will be adjusted for the quantity
of Asphalt and quantity of RAP or other materials incorporated into the mix.

2-01.AP2
Section 2-01, Clearing, Grubbing, and Roadside Cleanup
April 1, 2019

2-01.2(3) Disposal Method No. 3 – Chipping
Item number 2 of the first paragraph is revised to read:
2. Chips shall be disposed outside of sensitive areas, and in areas that aren’t in
   conflict with permanent Work.

2-02.AP2
Section 2-02, Removal of Structures and Obstructions
April 2, 2018

2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters
In item number 3 of the first paragraph, the second sentence is revised to read:
For concrete pavement removal, a second vertical full depth relief saw cut offset 12 to
18 inches from and parallel to the initial saw cut is also required, unless the Engineer
allows otherwise.

2-03.AP2
Section 2-03, Roadway Excavation and Embankment
April 1, 2019

2-03.3(14)F Displacement of Unsuitable Foundation Materials
This section, including title, is revised to read:
2-03.3(14)F Vacant

2-09.AP2

Section 2-09, Structure Excavation
April 1, 2019

2-09.2 Materials
In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement Concrete” are revised to read:

Cement 9-01
Fine Aggregate for Concrete 9-03.1(2)

2-09.3(3)B Excavation Using Open Pits – Extra Excavation
The last two paragraphs are deleted and replaced with the following:

The excavation height (Ht) shall be calculated within a vertical plane as the difference between the lowest elevation in the excavation and the highest elevation of the ground surface immediately adjacent to the excavation. Pavement thickness and other surface treatments existing at the time of the excavation shall be included in the height calculation.

Submittals and Design Requirements
Excavations 4-feet and less in height do not require design and submittals. The Contractor shall provide a safe work environment and shall execute the work in a manner that does not damage adjacent pavements, utilities, or structures. If the Engineer determines the Contractor’s work may potentially affect adjacent traffic, pavements, utilities, or structures, the Engineer may request a Type 1 Working Drawing from the Contractor. The Contractor shall explain in the Type 1 Working Drawing how the Engineer’s concerns will be addressed, why infrastructure will not be damaged by the work, and how worker safety will be preserved.

For excavations that have soil types and slope geometries defined in WAC 296-155 part N and are between 4-feet and 20-feet in height, the Contractor shall submit Type 2 Working Drawings. Required submittal elements include, at a minimum, the following:

1. A plan view showing the limits of the excavation and its relationship to traffic, structures, utilities and other pertinent project elements. If the stability of the excavation requires no-load zones or equipment setback distances, those shall be shown on the plan view.

2. A typical or controlling cross section showing the proposed excavation, original ground line, and locations of traffic, existing structures, utilities, site constraints, surcharge loads, or other conditions that could affect the stability of the slope. If the stability of the excavation requires no-load zones or equipment setback distances, those shall be shown in cross section.

3. A summary clearly describing subsurface conditions, soil type for WAC 296-155 part N, and groundwater conditions, sequencing considerations, and governing assumptions.
Where WAC 296-155 part N requires an engineer’s design, the Contractor shall submit Type 2E Working Drawings. Required submittal elements include, at a minimum, the three items above and the following additional items:

4. Supporting calculations for the design of 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 M 46-03.

5. Safety factors, or load and resistance factors used, and justification for their selection, in accordance with the WSDOT Geotechnical Design Manual M 46-03, and referenced AASHTO design manuals.

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

7. Any supplemental subsurface explorations made by the Contractor to meet the requirements for geotechnical design of excavation slopes, in accordance with the WSDOT Geotechnical Design Manual M 46-03.

2-09.3(3)D Shoring and Cofferdams
The first sentence of the sixth paragraph is revised to read:
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 for load and resistance factor design.

3-01.AP3
Section 3-01, Production from Quarry and Pit Sites
April 2, 2018

3-01.1 Description
The first paragraph is revised to read:
This Work shall consist of manufacturing and producing crushed and screened aggregates including pit run aggregates of the kind, quality, and grading specified for use in the construction of concrete, hot mix asphalt, crushed surfacing, maintenance rock, ballast, gravel base, gravel backfill, gravel borrow, riprap, and bituminous surface treatments of all descriptions.

4-04.AP4
Section 4-04, Ballast and Crushed Surfacing
April 2, 2018

4-04.3(5) Shaping and Compaction
This section is supplemented with the following new paragraph:
When using 100% Recycled Concrete Aggregate, the Contractor may submit a written request to use a test point evaluation for compaction acceptance testing in lieu of compacting to 95% of the standard density as determined by the requirements of
Section 2-03.3(14)D. The test point evaluation shall be performed in accordance with SOP 738.

5-01.AP5

Section 5-01, Cement Concrete Pavement Rehabilitation
January 7, 2019

5-01.2 Materials
The reference for Concrete Patching Material is revised to read:

Concrete Patching Material, Grout, and Mortar 9-20.1

5-01.3(1)A1 Concrete Patching Materials
In this section, each reference to “9-20” is revised to read “9-20.1”.

5-01.3(4) Replace Cement Concrete Panel
This section’s content is deleted and replaced with the following new subsections:

5-01.3(4)A General
Curing, cold weather work, concrete pavement construction in adjacent lines, and protection of pavement shall meet the requirements of Section 5-05.3(13) through Section 5-05.3(15). The Contractor, at no cost to the Contracting Agency, shall repair any damage to existing pavement caused by the Contractor’s operations.

5-01.3(4)B Sawing and Dimensional Requirements
Concrete slabs to be replaced as shown in the Plans or staked by the Engineer shall be at least 6.0 feet long and full width of an existing pavement panel. The portion of the panel to remain in place shall have a minimum dimension of 6 feet in length and full panel width; otherwise the entire panel shall be removed and replaced. There shall be no new joints closer than 3.0 feet to an existing transverse joint or crack. A vertical full depth saw cut is required along all longitudinal joints and at transverse locations and, unless the Engineer allows otherwise, an additional vertical full depth relief saw cut located 12 to 18 inches from and parallel to the initial longitudinal and transverse saw cut locations is also required. Removal of existing cement concrete pavement shall not cause damage to adjacent slabs that are to remain in place. In areas that will be ground, slab replacements shall be performed prior to pavement grinding.

Side forms shall meet the requirements of Section 5-05.3(7)B whenever a sawed full depth vertical face cannot be maintained.

5-01.3(4)C Dowel Bars and Tie Bars
For the half of a dowel bar or tie bar placed in fresh concrete, comply with the requirements of Section 5-05.
For the half of a dowel bar or tie bar placed in hardened concrete, comply with the Standard Plans and the following.
After drilling, secure dowel bars and tie bars into the existing pavement with either an epoxy bonding agent Type I or IV as specified in Section 9-26.1, or a grout Type 2 for non-shrink applications as specified in Section 9-20.3.
Dowel bars shall be placed at the mid depth of the concrete slab, centered over the transverse joint, and parallel to the centerline and to the roadway surface, within the tolerances in the table below. Dowel bars may be adjusted to avoid contact with existing dowel bars in the transverse joint at bridge approach slabs or existing panels provided the adjusted dowel bars meet the tolerances below.

Tie bars shall be placed at the mid depth of the concrete slab, centered over the joint, perpendicular to centerline, and parallel to the roadway surface, within the tolerances in the table below. The horizontal position of tie bars may be adjusted to avoid contact with existing tie bars in the longitudinal joint where panel replacement takes place, provided the adjusted tie bars meet the tolerances below.

<table>
<thead>
<tr>
<th>Placement Tolerances</th>
<th>Dowel Bars</th>
<th>Tie Bars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical: Center of Bar to Center of Slab Depth</td>
<td>± 1.00 inch max</td>
<td>± 1.00 inch max</td>
</tr>
<tr>
<td>Dowel Bar Centered Over the Transverse Joint</td>
<td>± 1.00 inch max</td>
<td>N/A</td>
</tr>
<tr>
<td>Tie Bar Centered Over the Longitudinal Joint</td>
<td>N/A</td>
<td>± 1.00 inch max</td>
</tr>
<tr>
<td>Parallel to Centerline Over the Length of the Dowel Bar</td>
<td>± 0.50 inch max</td>
<td>N/A</td>
</tr>
<tr>
<td>Perpendicular to Longitudinal Joint Over the Length of the Tie Bar</td>
<td>N/A</td>
<td>± 1.00 inch max</td>
</tr>
<tr>
<td>Parallel to Roadway Surface Over the Length of the Bar</td>
<td>± 0.50 inch max</td>
<td>± 1.00 inch max</td>
</tr>
</tbody>
</table>

Dowel bars and tie bars shall be placed according to the Standard Plan when multiple panels are placed. Panels shall be cast separately from the bridge approach slab.

Dowel bars to be drilled into existing concrete or at a new transverse contraction joint shall have a parting compound, such as curing compound, grease, or other Engineer accepted equal, applied to them prior to placement.

Clean the drilled holes in accordance with the epoxy or grout manufacturer’s instructions. Holes shall be clean and dry at the time of placing the epoxy, or grout and tie bars. Completely fill the void between the tie bar and the outer limits of the drilled hole with epoxy or grout. Use retention rings to prevent leakage of the epoxy or grout and support the tie bar to prevent movement until the epoxy or grout has cured the minimum time recommended by the manufacturer.

5-01.3(4)D Foundation Preparation

The Contractor shall smooth the surfacing below the removed panel and compact it to the satisfaction of the Engineer. Crushed surfacing base course, or hot mix asphalt may be needed to bring the surfacing to grade prior to placing the new concrete.

If the material under the removed panel is uncompactable and the Engineer requires it, the Contractor shall excavate the Subgrade 2 feet, place a soil stabilization construction geotextile meeting the requirements of Section 9-33, and backfill with crushed surfacing base course. This Work may include:

1. Furnishing and hauling crushed surfacing base course to the project site.
2. Excavating uncompactable material.
3. Furnishing and placing a soil stabilization construction geotextile.

4. Backfilling and compacting crushed surfacing base course.

5. Removing, hauling and restocking any unused crushed surfacing base course.

5-01.3(4)E Concrete Finishing
Grade control shall be the responsibility of the Contractor.

All panels shall be struck off level with the adjacent panels and floated to a smooth surface.

Final finish texturing shall meet the requirements of Section 5-05.3(11).

In areas where the Plans do not require grinding, the surface smoothness will be measured with a 10-foot straightedge by the Engineer in accordance with Section 5-05.3(12). If the replacement panel is located in an area that will be ground as part of concrete pavement grinding in accordance with Section 5-01.3(9), the surface smoothness shall be measured, by the Contractor, in conjunction with the smoothness measurement done in accordance with Section 5-01.3(10).

5-01.3(4)F Joints
All transverse and longitudinal joints shall be sawed and sealed in accordance with Section 5-05.3(8). The Contractor may use a hand pushed single blade saw for sawing joints.

5-01.3(4)G Cracked Panels
Replacement panels that crack shall be repaired as specified in Section 5-05.3(22) at no cost to the Contracting Agency. When repairing replacement panels that have cracked, epoxy-coated dowel bars meeting the requirements of Section 9-07.5(1) may be substituted for the corrosion resistant dowel bars specified.

5-01.3(4)H Opening to Traffic
Opening to traffic shall meet the requirements of Section 5-05.3(17).

5-01.3(5) Partial Depth Spall Repair
The second sentence of the third paragraph is revised to read:

All sandblasting residue shall be removed.

5-01.3(7) Sealing Existing Concrete Random Cracks
The second sentence of the second paragraph is revised to read:

Immediately prior to sealing, the cracks shall be clean.

5-01.3(8) Sealing Existing Longitudinal and Transverse Joint
The first sentence of the fifth paragraph is revised to read:

Immediately prior to sealing, the cracks shall be clean.

5-01.3(10) Pavement Smoothness
This section is revised to read:
Pavement surface smoothness for cement concrete pavement grinding on this project will include International Roughness Index (IRI) testing. Ride quality will be evaluated using the Mean Roughness Index (MRI) calculated by averaging the IRI data for the left and right wheel path within the section.

**Smoothness Testing Equipment and Operator Certification**

Use an inertial profiler and operator that meet the requirements of Section 5-05.3(3)E.

**Surface Smoothness**

Operate the inertial profiler in accordance with AASHTO R 57. Collect two longitudinal traces, one in each wheel path. Collect the control profile at locations designated in Table 2 prior to any pavement rehabilitation Work on the areas to be tested. Collect an acceptance profile at locations designated in Table 2 after completion of all cement concrete pavement grinding on the project. Profiles shall be collected in a continuous pass including areas excluded from pay adjustments. Provide notice to the Engineer a minimum of seven calendar days prior to testing.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Locations Requiring MRI Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel lanes where cement concrete grinding is shown in the plans</td>
<td>Control profile</td>
</tr>
<tr>
<td>Additional locations designated by the Engineer</td>
<td>Control profile</td>
</tr>
<tr>
<td>Travel lanes with completed cement concrete pavement grinding</td>
<td>Acceptance profile</td>
</tr>
<tr>
<td>Bridges, approach panels and 0.02 miles before and after bridges and approach panels and other excluded areas within lanes requiring testing</td>
<td>Control and acceptance profile</td>
</tr>
<tr>
<td>Ramps, Shoulders and Tapers</td>
<td>Do not test</td>
</tr>
</tbody>
</table>

Within 30 calendar days after the Contractor’s testing, the Engineer may perform verification testing. If the verification testing shows a difference in MRI greater than the 10 percent, the following resolution process will be followed:

1. The profiles, equipment and procedures will be evaluated to determine the cause of the difference.

2. If the cause of the discrepancy cannot be resolved the pavement shall be retested with both profilers at a mutually agreed time. The two profilers will test the section within 30 minutes of each other. If the retest shows a difference in MRI equal or greater than the percentages shown in Table 2 of AASHTO R 54 the Engineer’s test results will be used for pavement smoothness acceptance.

The Contractor shall evaluate profiles for acceptance or corrective action using the current version of ProVAL and provide the results including the profile data in unfiltered electronic Engineering Research Division (ERD) file format to the Engineer within 3 calendar days of completing each days profile testing. If the profile data files are created
using an export option in the manufacturer’s software where filter settings can be specified, use the filter settings that were used to create data files for certification.

Analyze the entire profile. Exclude areas listed in Table 3.

<table>
<thead>
<tr>
<th>Location</th>
<th>Exclude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning and end of grinding</td>
<td>Pavement within 0.02 mile</td>
</tr>
<tr>
<td>Bridges and approach slabs</td>
<td>The bridge and approach slab and 0.02 mile from the ends of the bridge or approach slab</td>
</tr>
<tr>
<td>Defects in the existing roadway identified by the Contractor that adversely affect the MRI such as dips, depressions and wheel path longitudinal joints.¹</td>
<td>0.01-mile section containing the defect and the 0.01-mile section following the section with the defect.</td>
</tr>
</tbody>
</table>

¹The presence of defects is subject to verification by the Engineer

Report the MRI results in inches per mile for each 0.01-mile section and each 0.10-mile section. Do not truncate 0.10-mile sections for areas excluded from MRI acceptance requirements. MRI requirements will not apply to 0.10-mile sections with more than three 0.01 mile-sections excluded. MRI requirements for the individual 0.01-mile sections shall still apply. The Engineer will verify the analysis.

The MRI for each 0.10 mile of ground lane will comply with the following:

<table>
<thead>
<tr>
<th>Control Profile MRI per 0.10 Mile</th>
<th>Maximum MRI of Acceptance Profile per 0.10 Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤130 inches/mile</td>
<td>78 inches/mile</td>
</tr>
<tr>
<td>&gt;130 inches/mile</td>
<td>0.6 x Control Profile MRI</td>
</tr>
</tbody>
</table>

The MRI for each 0.01 mile of the completed cement concrete grinding shall not exceed 160 inches/mile.

All Work is subject to parallel and transverse 10-foot straightedge requirements, corrective work and disincentive adjustments.

Surface smoothness of travel lanes including areas subject to MRI testing shall not vary more than \( \frac{1}{8} \) inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline.

The smoothness perpendicular to the centerline will be measured with a 10-foot straightedge within the lanes. There shall be not vertical elevation difference of more than a \( \frac{1}{4} \) inch between lanes.

Pavement that does not meet these requirements will be subject to corrective Work. All corrective Work shall be completed at no additional expense, including traffic control, to the Contracting Agency. Pavement shall be repaired by one or more of the following methods:

1. Diamond grinding.
2. By other method accepted by the Engineer.

Repair areas shall be re-profiled to ensure they no longer require corrective work. With concurrence of the Engineer, a 10-foot straight edge may be used in place of the inertial profiler.

If correction of the roadway as listed above either will not or does not produce satisfactory results as to smoothness or serviceability the Engineer may accept the completed pavement and a credit will be calculated in accordance with Section 5-01.5. Under these circumstances, the decision whether to accept the completed pavement or to require corrective work as described above shall be vested entirely in the Engineer.

5-01.5 Payment

This section is supplemented with the following:

“Grinding Smoothness Compliance Adjustment”, by calculation. Grinding Smoothness Compliance Adjustments will be based on the requirements in Section 5-01.3(10) and the following calculations:

A smoothness compliance adjustment will be calculated in the sum of minus $100 for each and every section of single traffic lane 0.01 mile in length and $1,000 for each and every section of single traffic lane 0.10 mile in length that does not meet the requirements in Section 5-01.3(10) after corrective work.

5-02.AP5

Section 5-02, Bituminous Surface Treatment

April 1, 2019

5-02.3(5) Application of Aggregates

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

The Contractor shall use a pickup broom in all curbed areas, on all bridges, within city limits, within sensitive areas, and where shown in the Plans both before the application of emulsified asphalt and during the final brooming operation.

5-04.AP5

Section 5-04, Hot Mix Asphalt

April 1, 2019

5-04.1 Description

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

The manufacture of HMA may include additives or processes that reduce the optimum mixing temperature (Warm Mix Asphalt) or serve as a compaction aid in accordance with these Specifications.

5-04.2 Materials

The reference to “Warm Mix Asphalt Additive” is revised to read “HMA Additive”.

AMENDMENTS TO THE 2018 STANDARD SPECIFICATIONS BOOK
Revised: 4/1/19
5-04.2(1) How to Get an HMA Mix Design on the QPL

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

• Do not include HMA additives that reduce the optimum mixing temperature or serve as a compaction aid when developing a mix design or submitting a mix design for QPL evaluation. The use of HMA additives is not part of the process for obtaining approval for listing a mix design on the QPL. Refer to Section 5-04.2(2)B.

In the table, “WSDOT Standard Practice QC-8” is revised to read “WSDOT Standard Practice QC-8 located in the WSDOT Materials Manual M 46-01”.

5-04.2(1)C Mix Design Resubmittal for QPL Approval

Item number 3 of the first paragraph is revised to read:

3. Changes in modifiers used in the asphalt binder.

5-04.2(2)B Using Warm Mix Asphalt Processes

This section, including title, is revised to read:

5-04.2(2)B Using HMA Additives

The Contractor may, at the Contractor’s discretion, elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

• Do not use additives that reduce the mixing temperature in accordance with Section 5-04.3(6) in the production of High RAP/Any RAS mixtures.

• Before using additives, obtain the Engineer’s approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3(3)A Mixing Plant

Item number 5 of the first paragraph is revised to read:

5. Provide HMA sampling equipment that complies with FOP for AASHTO T 168:

• Use a mechanical sampling device accepted by the Engineer, or

• Platforms or devices to enable sampling from the truck transport without entering the truck transport for sampling HMA.

5-04.3(4) Preparation of Existing Paved Surfaces

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

Unless otherwise allowed by the Engineer, use cationic emulsified asphalt CSS-1, CSS-1h, or Performance Graded (PG) asphalt for tack coat.

5-04.3(6) Mixing

The first paragraph is revised to read:
The asphalt supplier shall introduce recycling agent and anti-stripping additive, in the amount designated on the QPL for the mix design, into the asphalt binder prior to shipment to the asphalt mixing plant.

The seventh paragraph is revised to read:

Upon discharge from the mixer, ensure that the temperature of the HMA does not exceed the optimum mixing temperature shown on the accepted Mix Design Report by more than 25°F, or as allowed by the Engineer. When an additive is included in the manufacture of HMA, do not heat the additive (at any stage of production including in binder storage tanks) to a temperature higher than the maximum recommended by the manufacturer of the additive.

5-04.3(7) Spreading and Finishing

The last row of the table is revised to read:

<table>
<thead>
<tr>
<th>% inch</th>
<th>0.25 feet</th>
<th>0.30 feet</th>
</tr>
</thead>
</table>

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

The following new paragraph is inserted after the first paragraph:

The Contracting Agency’s combined aggregate bulk specific gravity (Gsb) blend as shown on the HMA Mix Design will be used for VMA calculations until the Contractor submits a written request for a Gsb test. The new Gsb will be used in the VMA calculations for HMA from the date the Engineer receives the written request for a Gsb retest. The Contractor may request aggregate specific gravity (Gsb) testing be performed by the Contracting Agency twice per project. The Gsb blend of the combined stockpiles will be used to calculate voids in mineral aggregate (VMA) of any HMA produced after the new Gsb is determined.

5-04.3(9)A1 Test Section – When Required, When to Stop

The following new row is inserted after the second row in Table 9:

<table>
<thead>
<tr>
<th>VMA</th>
<th>Minimum PF, of 0.95 based on the criteria in Section 5-04.3(9)B4</th>
<th>None⁴</th>
</tr>
</thead>
</table>

5-04.3(9)A2 Test Section – Evaluating the HMA Mixture in a Test Section

In Table 9a, the test property “Gradation, Asphalt Binder, and Vₐ” is revised to read “Gradation, Asphalt Binder, VMA, and Vₐ”

In Table 9a, the first column of the third row is revised to read:

| Aggregates:
| Sand Equivalent
| Uncompacted Void Content
| Fracture |

5-04.3(9)B3 Mixture Statistical Evaluation – Acceptance Testing

In Table 11, “Vₐ” is revised to read “VMA and Vₐ”
5-04.3(9)B5 Mixture Statistical Evaluation – Composite Pay Factors (CPF)

The following new row is inserted above the last row in Table 12:

| Voids in Mineral Aggregate (VMA) | 2 |

5-04.3(9)B7 Mixture Statistical Evaluation – Retests

The second to last sentence is revised to read:

The sample will be tested for a complete gradation analysis, asphalt binder content, VMA and V_a, and the results of the retest will be used for the acceptance of the HMA mixture in place of the original mixture sublot sample test results.

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

The last paragraph is revised to read:

On bridge decks and on roadway approaches within five feet of a bridge/back of pavement seat, rollers shall not be operated in a vibratory mode, defined as a mode in which the drum vibrates vertically. However, unless otherwise noted on the plans, rollers may be operated in an oscillatory mode, defined as a mode in which the drum vibrates in the horizontal direction only.

5-04.3(10)C1 HMA Compaction Statistical Evaluation – Lots and Sublots

The bulleted item in the fourth paragraph is revised to read:

- For a compaction lot in progress with a compaction CPF less than 0.75 using an LSL = 91.5, a new compaction lot will begin at the Contractor’s request after the Engineer is satisfied that material conforming to the Specifications can be produced. See also Section 5-04.3(11)F.

5-04.3(10)C2 HMA Compaction Statistical Evaluation – Acceptance Testing

In the table, “WSDOT FOP for AASHTO T 355” is revised to read “FOP for AASHTO T 355”.

5-04.3(10)C3 HMA Statistical Compaction – Price Adjustments

In the first paragraph, “WSDOT FOP for AASHTO T 355” is revised to read “FOP for AASHTO T 355”.

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

For each HMA compaction lot (that is accepted by Statistical Evaluation) which does not meet the criteria in the preceding paragraph, the compaction lot shall be evaluated in accordance with Section 1-06.2(2)D5 to determine the appropriate Composite Pay Factor (CPF).

The last two paragraphs are revised to read:

Determine the Compaction Price Adjustment (CPA) from the table below, selecting the equation for CPA that corresponds to the value of CPF determined above.

| Calculating HMA Compaction Price Adjustment (CPA) |
| Value of CPF | Equation for Calculating CPA |

AMENDMENTS TO THE 2018 STANDARD SPECIFICATIONS BOOK
Revised: 4/1/19
When $CPF > 1.00$  
\[ CPA = [1.00 \times (CPF - 1.00)] \times Q \times UP \]

When $CPF = 1.00$  
\[ CPA = 0 \]

When $CPF < 1.0$  
\[ CPA = [0.60 \times (CPF - 1.00)] \times Q \times UP \]

Where

- $CPA$ = Compaction Price Adjustment for the compaction lot ($)$
- $CPF$ = Composite Pay Factor for the compaction lot (maximum is 1.05)
- $Q$ = Quantity in the compaction lot (tons)
- $UP$ = Unit price of the HMA in the compaction lot ($/ton)$

### 5-04.3(10)C4 HMA Statistical Compaction – Requests for Retesting

The first sentence is revised to read:

For a compaction subplot that has been tested with a nuclear density gauge that did not meet the minimum of 91.5 percent of the theoretical maximum density in a compaction lot with a $CPF$ below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core, taken at the same location as the nuclear density test, be used for determination of the relative density of the compaction subplot.

### 5-04.3(13) Surface Smoothness

The second to last paragraph is revised to read:

When concrete pavement is to be placed on HMA, the surface tolerance of the HMA shall be such that no surface elevation lies above the Plan grade minus the specified Plan depth of concrete pavement. Prior to placing the concrete pavement, bring any such irregularities to the required tolerance by grinding or other means allowed by the Engineer.

### 5-04.5 Payment

The paragraph following the Bid item “Crack Sealing-LF”, per linear foot is revised to read:

The unit Contract price per linear foot for “Crack Sealing-LF” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4)A.

### 5-05.AP5

Section 5-05, Cement Concrete Pavement

April 1, 2019

### 5-05.1 Description

In the first paragraph, “portland cement concrete” is revised to read “cement concrete”.

### 5-05.2 Materials

In the first paragraph, the reference to “Portland Cement” is revised to read:

- Cement 9-01

In the first paragraph, the section reference for Concrete Patching Material is revised to read “9-20.1”.
The second paragraph is revised to read:

Cementitious materials are considered to be the following: portland cement, blended hydraulic cement, fly ash, ground granulated blast furnace slag and microsilica fume.

5-05.3(1) Concrete Mix Design for Paving
The table title in item number 4 is revised to read Concrete Batch Weights.

In item 4a, “Portland Cement” is revised to read “Cement”.

5-05.3(3)E Smoothness Testing Equipment
This section is revised to read:

Inertial profilers shall meet all requirements of AASHTO M 328 and be certified in accordance with AASHTO R 56 within the preceding 12 months.

The inertial profiler operator shall be certified as required by AASHTO R 56 within three years preceding profile measurement.

Equipment or operator certification by other states or a profiler certification facility will be accepted provided the certification meets the requirements of AASHTO R 56. Documentation verifying certification by another state shall be submitted to the Engineer a minimum of 14 calendar days prior to profile measurement. Equipment certification documentation shall include the information required by part 8.5 and 8.6 of AASHTO R 56. Operator documentation shall include a statement from the certifying state that indicates the operator is certified to operate the inertial profiler to be used on the project. The decision whether another state’s certification meets the requirements of AASHTO R 56 shall be vested entirely in the Engineer.

5-05.3(4) Measuring and Batching Materials
Item number 2 is revised to read:

2. Batching Materials – On all projects requiring more than 2,500 cubic yards of concrete for paving, the batching plant shall be equipped to proportion aggregates and cement by weight by means of automatic and interlocked proportioning devices of accepted type.

5-05.3(4)A Acceptance of Portland Cement Concrete Pavement
This section’s title is revised to read:

Acceptance of Portland Cement or Blended Hydraulic Cement Concrete Pavement

The first sentence is revised to read:

Acceptance of portland cement or blended hydraulic cement concrete pavement shall be as provided under statistical or nonstatistical acceptance.

5-05.3(7) Placing, Spreading, and Compacting Concrete
This section’s content is deleted.

5-05.3(10) Tie Bars and Corrosion Resistant Dowel Bars
The first sentence of the last paragraph is revised to read:
The tie bar holes shall be clean before grouting.

5-05.3(12) Surface Smoothness

This section is revised to read:

Pavement surface smoothness for this project will include International Roughness Index (IRI) testing. The Contractor shall perform IRI testing on each through lane, climbing lane, and passing lane, greater than 0.25 mile in length and these lanes will be subject to incentive/disincentive adjustments. Ride quality will be evaluated using the Mean Roughness Index (MRI) calculated by averaging the IRI data for the left and right wheel path within the section.

Ramps, shoulders and tapers will not be included in MRI testing for pavement smoothness and will not be subject to incentive adjustments. All Work is subject to parallel and transverse 10-foot straightedge requirements, corrective work and disincentive adjustments.

Operate the inertial profiler in accordance with AASHTO R 57. Collect two longitudinal traces, one in each wheel path. Collect profile data after completion of all concrete paving on the project in a continuous pass including areas excluded from pay adjustments. Provide notice to the Engineer a minimum of seven calendar days prior to testing.

Within 30 calendar days after the Contractor’s testing, the Engineer may perform verification testing. If the verification testing shows a difference in MRI greater than the percentages shown in Table 2 of AASHTO R 54 the following resolution process will be followed:

1. The profiles, equipment and procedures will be evaluated to determine the cause of the difference.

2. If the cause of the discrepancy cannot be resolved the pavement shall be retested with both profilers at a mutually agreed time. The two profilers will test the section within 30 minutes of each other. If the retest shows a difference in MRI equal or greater than the percentages shown in Table 2 of AASHTO R 54 the Engineer’s test results will be used to establish pay adjustments.

Surface smoothness of travel lanes not subject to MRI testing will be measured with a 10-foot straightedge no later than 5:00 p.m. of the day following the placing of the concrete. The completed surface of the wearing course shall not vary more than ⅛ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline.

Smoothness perpendicular to the centerline will be measured with a 10-foot straightedge across all lanes with the same cross slope, including shoulders when composed of cement concrete pavement. The overlapping 10-foot straightedge measurement shall be discontinued at a point 6 inches from the most extreme outside edge of the finished cement concrete pavement. The completed surface of the wearing course shall not vary more than ¼ inch from the lower edge of a 10-foot straightedge.
placed on the surface perpendicular to the centerline. Any deviations in excess of the above tolerances shall be corrected.

The Contractor shall evaluate profiles for acceptance, incentive payments, disincentive payments, or corrective action using the current version of ProVAL and provide the results including the profile data in unfiltered electronic Engineering Research Division (ERD) file format to the Engineer within 2 calendar days of completing testing each section of pavement. If the profile data files are created using an export option in the manufacturer’s software where filter settings can be specified, use the filter settings that were used to create data files for certification. Analyze the entire profile. Exclude any areas specifically identified in the Contract. Exclude from the analysis the first 100 feet after the start of the paving operations and last 100 feet prior to the end of the paving operation, the first 100 feet on either side of bridge Structures and bridge approach slab. Report the MRI results in inches per mile for each 52.8 foot section and horizontal distance measurements in project stationing to the nearest foot. Include pay adjustments in the results. The Engineer will verify the analysis.

Corrective work for pavement smoothness may be taken by the Contractor prior to MRI testing. After completion of the MRI testing the Contractor shall measure the smoothness of each 52.8-foot section with an MRI greater than 125 inches per mile with a 10-foot straightedge within 14 calendar days or as allowed by the Engineer. The Contractor shall identify all locations that require corrective work and provide the straight edge measurements at each location that exceeds the allowable limit to the Engineer. If all measurements in a 52.8-foot section comply with smoothness requirements, the Contractor shall provide the maximum measurement to the Engineer and a statement that corrective work is not required. Unless allowed by the Engineer, corrective work shall be taken by the Contractor for pavement identified by the Contractor or Engineer that does not meet the following requirements:

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

All corrective work shall be completed at no additional expense, including traffic control, to the Contracting Agency. Corrective work shall not begin until the concrete has reached its design strength unless allowed by the Engineer. Pavement shall be repaired by one or more of the following methods:

1. Diamond grinding; repairs shall not reduce pavement thickness by more than ¼ inch less than the thickness shown in the Plans. When required by the Engineer, the Contractor shall verify the thickness of the concrete pavement by coring. Thickness reduction due to corrective work will not be included in thickness measurements for calculating the Thickness Deficiency in Section 5-05.5(1A).
2. Removal and replacement of the cement concrete pavement.
3. By other method allowed by the Engineer.

For repairs following MRI testing the repaired area shall be checked by the Contractor with a 10-foot straightedge to ensure it no longer requires corrective work. With concurrence of the Engineer an inertial profiler may be used in place of the 10-foot straight edge.

If correction of the roadway as listed above either will not or does not produce satisfactory results as to smoothness or serviceability the Engineer may accept the completed pavement and a credit will be calculated in accordance with Section 5-05.5. The credit will be in addition to the price adjustment for MRI. Under these circumstances, the decision whether to accept the completed pavement or to require corrective work as described above shall be vested entirely in the Engineer.

5-05.3(22) Repair of Defective Pavement Slabs
The last sentence of the fourth paragraph is revised to read:

All sandblasting residue shall be removed.

5-05.4 Measurement
Item number 3 of the second paragraph is revised to read:

3. The depth shall be determined in accordance with Section 5-05.5(1). The depth utilized to calculate the volume shall not exceed the Plan depth plus 0.04 feet.

The third paragraph is revised to read:

The volume of cement concrete pavement in each thickness lot shall equal the measured length × width × thickness measurement.

The last paragraph is revised to read:

The calculation for cement concrete compliance adjustment is the volume of concrete represented by the CPF and the Thickness deficiency adjustment.

5-05.5 Payment
The paragraph following the Bid item “Cement Conc. Pavement”, per cubic yard is supplemented with the following:

All costs associated with performing the magnetic pulse induction thickness testing shall be included in the unit Contract price per cubic yard for “Cement Conc. Pavement”.

The Bid item “Ride Smoothness Compliance Adjustment”, by calculation, and the paragraph following this bid item are revised to read:

“Ride Smoothness Compliance Adjustment”, by calculation.

Smoothness Compliance Adjustments will be based on the requirements in Section 5-05.3(12) and the following calculations:
1. Final MRI acceptance and incentive/disincentive payments for pavement smoothness will be calculated as the average of the ten 52.8-foot sections in each 528 feet in accordance with the price adjustment schedule.

a. For sections of a lane that are a minimum of 52.8 feet and less than 528 feet, the price adjustment will be calculated using the average of the 52.8 foot MRI values and the price adjustment prorated for the length of the section.

b. MRI values per 52.8-feet that were measured prior to corrective work will be included in the 528 foot price adjustment for sections with corrective work.

2. In addition to the price adjustment for MRI a smoothness compliance adjustment will be calculated in the sum of minus $1000.00 for each and every section of single traffic lane 52.8 feet in length in that does not meet the 10-foot straight edge requirements in Section 5-05.3(12) after corrective work.

<table>
<thead>
<tr>
<th>MRI for each 528 ft. section</th>
<th>Pay Adjustment Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>in. / mi.</td>
<td>$ / 0.10 mi.</td>
</tr>
<tr>
<td>&lt; 30</td>
<td>2400</td>
</tr>
<tr>
<td>30</td>
<td>2400</td>
</tr>
<tr>
<td>31</td>
<td>2320</td>
</tr>
<tr>
<td>32</td>
<td>2240</td>
</tr>
<tr>
<td>33</td>
<td>2160</td>
</tr>
<tr>
<td>34</td>
<td>2080</td>
</tr>
<tr>
<td>35</td>
<td>2000</td>
</tr>
<tr>
<td>36</td>
<td>1920</td>
</tr>
<tr>
<td>37</td>
<td>1840</td>
</tr>
<tr>
<td>38</td>
<td>1760</td>
</tr>
<tr>
<td>39</td>
<td>1680</td>
</tr>
<tr>
<td>40</td>
<td>1600</td>
</tr>
<tr>
<td>41</td>
<td>1520</td>
</tr>
<tr>
<td>42</td>
<td>1440</td>
</tr>
<tr>
<td>43</td>
<td>1360</td>
</tr>
<tr>
<td>44</td>
<td>1280</td>
</tr>
<tr>
<td>45</td>
<td>1200</td>
</tr>
<tr>
<td>46</td>
<td>1120</td>
</tr>
<tr>
<td>47</td>
<td>1040</td>
</tr>
<tr>
<td>48</td>
<td>960</td>
</tr>
<tr>
<td>49</td>
<td>880</td>
</tr>
<tr>
<td>50</td>
<td>800</td>
</tr>
<tr>
<td>51</td>
<td>720</td>
</tr>
<tr>
<td>52</td>
<td>640</td>
</tr>
<tr>
<td>53</td>
<td>560</td>
</tr>
<tr>
<td>54</td>
<td>480</td>
</tr>
<tr>
<td>55</td>
<td>400</td>
</tr>
<tr>
<td>56</td>
<td>320</td>
</tr>
<tr>
<td>57</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>58</td>
<td>160</td>
</tr>
<tr>
<td>59</td>
<td>80</td>
</tr>
<tr>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td>61</td>
<td>0</td>
</tr>
<tr>
<td>62</td>
<td>0</td>
</tr>
<tr>
<td>63</td>
<td>0</td>
</tr>
<tr>
<td>64</td>
<td>0</td>
</tr>
<tr>
<td>65</td>
<td>0</td>
</tr>
<tr>
<td>66</td>
<td>0</td>
</tr>
<tr>
<td>67</td>
<td>0</td>
</tr>
<tr>
<td>68</td>
<td>0</td>
</tr>
<tr>
<td>69</td>
<td>0</td>
</tr>
<tr>
<td>70</td>
<td>0</td>
</tr>
<tr>
<td>71</td>
<td>0</td>
</tr>
<tr>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>73</td>
<td>0</td>
</tr>
<tr>
<td>74</td>
<td>0</td>
</tr>
<tr>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>76</td>
<td>-80</td>
</tr>
<tr>
<td>77</td>
<td>-160</td>
</tr>
<tr>
<td>78</td>
<td>-240</td>
</tr>
<tr>
<td>79</td>
<td>-320</td>
</tr>
<tr>
<td>80</td>
<td>-400</td>
</tr>
<tr>
<td>81</td>
<td>-480</td>
</tr>
<tr>
<td>82</td>
<td>-560</td>
</tr>
<tr>
<td>83</td>
<td>-640</td>
</tr>
<tr>
<td>84</td>
<td>-720</td>
</tr>
<tr>
<td>85</td>
<td>-800</td>
</tr>
<tr>
<td>86</td>
<td>-880</td>
</tr>
<tr>
<td>87</td>
<td>-960</td>
</tr>
<tr>
<td>88</td>
<td>-1040</td>
</tr>
<tr>
<td>89</td>
<td>-1120</td>
</tr>
<tr>
<td>90</td>
<td>-1200</td>
</tr>
<tr>
<td>91</td>
<td>-1280</td>
</tr>
<tr>
<td>92</td>
<td>-1360</td>
</tr>
<tr>
<td>93</td>
<td>-1440</td>
</tr>
<tr>
<td>94</td>
<td>-1520</td>
</tr>
<tr>
<td>95</td>
<td>-1600</td>
</tr>
<tr>
<td>96</td>
<td>-1680</td>
</tr>
<tr>
<td>97</td>
<td>-1760</td>
</tr>
<tr>
<td>98</td>
<td>-1840</td>
</tr>
<tr>
<td>99</td>
<td>-1920</td>
</tr>
<tr>
<td>100</td>
<td>-2000</td>
</tr>
<tr>
<td>101</td>
<td>-2080</td>
</tr>
<tr>
<td>102</td>
<td>-2160</td>
</tr>
<tr>
<td>103</td>
<td>-2240</td>
</tr>
<tr>
<td>104</td>
<td>-2320</td>
</tr>
<tr>
<td>105</td>
<td>-2400</td>
</tr>
<tr>
<td>106</td>
<td>-2480</td>
</tr>
<tr>
<td>107</td>
<td>-2560</td>
</tr>
</tbody>
</table>
The bid item “Portland Cement Concrete Compliance Adjustment”, by calculation, and the paragraph following this bid item are revised to read:

“Cement Concrete Compliance Adjustment”, by calculation.

Payment for “Cement Concrete Compliance Adjustment” will be calculated by multiplying the unit Contract price for the cement concrete pavement, times the volume for adjustment, times the percent of adjustment determined from the calculated CPF and the Deficiency Adjustment listed in Section 5-05.5(1)A.

5-05.5(1) Pavement Thickness
This section is revised to read:

Cement concrete pavement shall be constructed in accordance with the thickness requirements in the Plans and Specifications. Tolerances allowed for Subgrade construction and other provisions, which may affect thickness, shall not be construed to modify such thickness requirements.

Thickness measurements in each lane paved shall comply with the following:

<table>
<thead>
<tr>
<th>Thickness Testing of Cement Concrete Pavement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness Lot Size</td>
</tr>
<tr>
<td>Thickness test location determined by</td>
</tr>
<tr>
<td>Sample method</td>
</tr>
<tr>
<td>Sample preparation performed by</td>
</tr>
<tr>
<td>Measurement method</td>
</tr>
<tr>
<td>Thickness measurement performed by</td>
</tr>
</tbody>
</table>

¹Reflectors shall be located at within 0.5 feet of the center of the panel. The Contractor shall supply a sufficient number of 300 mm-diameter round reflectors meeting the requirements of AASHTO T 359 to accomplish the required testing.
The Contractor shall provide all equipment and materials needed to perform the testing.

Thickness measurements shall be rounded to the nearest 0.01 foot.

Each thickness test location where the pavement thickness is deficient by more than 0.04 foot, shall be subject to price reduction or corrective action as shown in Table 2.

<table>
<thead>
<tr>
<th>Thickness Deficiency</th>
<th>Percent Price Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.04’ &lt; Thickness Deficiency ≤ 0.06’</td>
<td>10</td>
</tr>
<tr>
<td>0.06’ &lt; Thickness deficiency ≤ 0.08’</td>
<td>25</td>
</tr>
<tr>
<td>Thickness deficiency &gt; 0.08’</td>
<td>Remove and replace the panels or the panels may be accepted with no payment at the discretion of the Engineer.</td>
</tr>
</tbody>
</table>

The price reduction shall be computed by multiplying the percent price reduction in Table 2 by the unit Contract price by the volume of pavement represented by the thickness test lot.

Additional cores may be taken by the Contractor to determine the limits of an area that has a thickness deficiency greater than 0.04 feet. Cores shall be taken at the approximate center of the panel. Only the panels within the limits of the deficiency area as determined by the cores will be subject to a price reduction or corrective action. The cores shall be taken in the presence of the Engineer and delivered to the Engineer for measurement. All costs for the additional cores including filling the core holes with patching material meeting the requirements of Section 9-20 will be the responsibility of the Contractor.

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

This section, including title, is revised to read:

5-05.5(1)A Vacant

5-05.5(1)B Thickness Deficiency of More Than 0.05 Foot

This section, including title, is revised to read:

5-05.5(1)B Vacant

6-01.AP6

Section 6-01, General Requirements for Structures
January 7, 2019

This section is supplemented with the following new subsections:

6-01.16 Repair of Defective Work

6-01.16(1) General

When using repair procedures that are described elsewhere in the Contract Documents, the Working Drawing submittal requirements of this Section shall not apply to those repairs unless noted otherwise.

Repair procedures for defective Work shall be submitted as Type 2 Working Drawings. Type 2E Working Drawings shall be submitted when required by the
Engineer. As an alternative to submitting Type 2 or 2E Working Drawings, defective Work within the limits of applicability of a pre-approved repair procedure may be repaired using that procedure. Repairs using a pre-approved repair procedure shall be submitted as a Type 1 Working Drawing.

Pre-approved repair procedures shall consist of the following:

- The procedures listed in Section 6-01.16(2)
- For precast concrete, repair procedures in the annual plant approval process documents that have been approved for use by the Contracting Agency.

All Working Drawings for repair procedures shall include:

- A description of the defective Work including location, extent and pictures
- Materials to be used in the repair. Repairs using manufactured products shall include written manufacturer recommendations for intended uses of the product, surface preparation, mixing, aggregate extension (if applicable), ambient and surface temperature limits, placement methods, finishing and curing.
- Construction procedures
- Plan details of the area to be repaired
- Calculations for Type 2E Working Drawings

Material manufacturer’s instructions and recommendations shall supersede any conflicting requirements in pre-approved repair procedures.

The Engineer shall be notified prior to performing any repair procedure and shall be given an opportunity to inspect the repair work being performed.

6-01.16(2) Pre-Approved Repair Procedures
6-01.16(2)A Concrete Spalls and Poor Consolidation (Rock Pockets, Honeycombs, Voids, etc.)
This repair shall be limited to the following areas:

- Areas that are not on top Roadway surfaces (with or without an overlay) including but not limited to concrete bridge decks, bridge approach slabs or cement concrete pavement
- Areas that are not underwater
- Areas that are not on precast barrier, except for the bottom 4 inches (but not to exceed 1 inch above blockouts)
- Areas that do not affect structural adequacy as determined by the Engineer.
The repair procedure is as follows:

1. Remove all loose and unsound concrete. Impact breakers shall not exceed 15 pounds in weight when removing concrete adjacent to reinforcement or other embedments and shall not exceed 30 pounds in weight otherwise. Operate impact breakers at angles less than 45 degrees as measured from the surface of the concrete to the tool and moving away from the edge of the defective Work. Concrete shall be completely removed from exposed surfaces of existing steel reinforcing bars. If half or more of the circumference of any steel reinforcing bar is exposed, if the reinforcing bar is loose or if the bond to existing concrete is poor then concrete shall be removed at least ¾ inch behind the reinforcing bar. Do not damage any existing reinforcement. Stop work and allow the Engineer to inspect the repair area after removing all loose and unsound concrete. Submit a modified repair procedure when required by the Engineer.

2. Square the edges of the repair area by cutting an edge perpendicular to the concrete surface around the repair area. The geometry of the repair perimeter shall minimize the edge length and shall be rectangular with perpendicular edges, avoiding reentrant corners. The depth of the cut shall be a minimum of ¾ inch, but shall be reduced if necessary to avoid damaging any reinforcement. For repairs on vertical surfaces, the top edge shall slope up toward the front at a 1-vertical-to-3-horizontal slope.

3. Remove concrete within the repair area to a depth at least matching the cut depth at the edges. Large variations in the depth of removal within short distances shall be avoided. Roughen the concrete surface. The concrete surface should be roughened to at least Concrete Surface Profile (CSP) 5 in accordance with ICRI Guideline No. 310.2R, unless a different CSP is recommended by the patching material manufacturer.

4. Inspect the concrete repair surface for delaminations, debonding, microcracking and voids using hammer tapping or a chain drag. Remove any additional loose or unsound concrete in accordance with steps 1 through 3.

5. Select a patching material in accordance with Section 9-20.2 that is appropriate for the repair location and thickness. The concrete patching material shall be pumpable or self-consolidating as required for the type of placement that suits the repair. The patching material shall have a minimum compressive strength at least equal to the specified compressive strength of the concrete.

6. Prepare the concrete surface and reinforcing steel in accordance with the patching material manufacturer’s recommendations. At a minimum, clean the concrete surfaces (including perimeter edges) and reinforcing steel using oil-free abrasive blasting or high-pressure (minimum 5,000 psi) water blasting. All dirt, dust, loose particles, rust, laitance, oil, film, microcracked/bruised concrete or foreign material of
any sort shall be removed. Damage to the epoxy coating on steel 
reinforcing bars shall be repaired in accordance with Section 6-
02.3(24)H.

7. Construct forms if necessary, such as for patching vertical or 
overhead surfaces or where patching extends to the edge or corner 
of a placement.

8. When recommended by the patching material manufacturer, saturate 
the concrete in the repair area and remove any free water at the 
concrete surface to obtain a saturated surface dry (SSD) substrate. 
When recommended by the patching material manufacturer, apply a 
primer, scrub coat or bonding agent to the existing surfaces. Epoxy 
bonding agents, if used, shall be Type II or Type V in accordance with 
Section 9-26.1.

9. Place and consolidate the patching material in accordance with the 
manufacturer’s recommendations. Work the material firmly into all 
surfaces of the repair area with sufficient pressure to achieve proper 
bond to the concrete.

10. The patching material shall be textured, cured and finished in 
accordance with the patching material manufacturer’s 
recommendations and/or the requirements for the repaired 
component. Protect the newly placed patch from vibration in 
accordance with Section 6-02.3(6)D.

11. When the completed repair does not match the existing concrete 
color and will be visible to the public, a sand and cement mixture that 
is color matched to the existing concrete shall be rubbed, brushed, or 
applied to the surface of the patching material and the concrete.

6-01.10 Utilities Supported by or Attached to Bridges
In the third paragraph, “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

6-01.12 Final Cleanup
The second sentence of the first paragraph is revised to read:
Structure decks shall be clean.
The second paragraph is deleted.

6-02.AP6
Section 6-02, Concrete Structures
April 1, 2019

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 or blended hydraulic cement concrete with or without reinforcement, 
including bridge approach slabs.
6-02.2 Materials
In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement Concrete” are revised to read:

Cement 9-01
Aggregates for Concrete 9-03.1

The reference to metakaolin is deleted.

6-02.3(2) Proportioning Materials
The second paragraph is revised to read:

Unless otherwise specified, the Contractor shall use Type I or II portland cement or blended hydraulic cement in all concrete as defined in Section 9-01.2(1).

The last sentence of the fifth paragraph is revised to read:

With the Engineer’s written concurrence, microsilica fume may be used in all classifications of Class 4000, Class 3000, and commercial concrete and is limited to a maximum of 10 percent of the cementitious material.

6-02.3(2)A Contractor Mix Design
The last sentence of the last paragraph is revised to read:

For all other concrete, air content shall be a minimum of 4.5 percent and a maximum of 7.5 percent for all concrete placed above the finished ground line unless noted otherwise.

6-02.3(2)A1 Contractor Mix Design for Concrete Class 4000D
Item number 5 of the first paragraph is deleted.

Item number 6 of the first paragraph (after the preceding Amendment is applied) is renumbered to 5.

6-02.3(2)B Commercial Concrete
The second paragraph is revised to read:

Where concrete Class 3000 is specified for items such as, culvert headwalls, plugging culverts, concrete pipe collars, pipe anchors, monument cases, Type PPB, PS, I, FB and RM signal standards, pedestals, cabinet bases, guardrail anchors, fence post footings, sidewalks, concrete curbs, curbs and gutters, and gutters, the Contractor may use commercial concrete. If commercial concrete is used for sidewalks, concrete curbs, curbs and gutters, and gutters, it shall have a minimum cementitious material content of 564 pounds per cubic yard of concrete, shall be air entrained, and the tolerances of Section 6-02.3(5)C shall apply.

6-02.3(4) Ready-Mix Concrete
The first sentence of the first paragraph is revised to read:

All concrete, except lean concrete, shall be batched in a prequalified manual, semi-automatic, or automatic plant as described in Section 6-02.3(4)A.
6-02.3(4)D Temperature and Time For Placement

The following is inserted after the first sentence of the first paragraph:

The upper temperature limit for placement for Class 4000D concrete may be increased to a maximum of 80°F if allowed by the Engineer.

6-02.3(5)C Conformance to Mix Design

Item number 1 of the second paragraph is revised to read:

1. Cement weight plus 5 percent or minus 1 percent of that specified in the mix design.

6-02.3(6)A1 Hot Weather Protection

The first paragraph is revised to read:

The Contractor shall provide concrete within the specified temperature limits. Cooling of the coarse aggregate piles by sprinkling with water is permitted provided the moisture content is monitored, the mixing water is adjusted for the free water in the aggregate and the coarse aggregate is removed from at least 1 foot above the bottom of the pile. Sprinkling of fine aggregate piles with water is not allowed. Refrigerating mixing water or replacing all or part of the mixing water with crushed ice is permitted, provided the ice is completely melted by placing time.

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

These surfaces include forms, reinforcing steel, steel beam flanges, and any others that touch the concrete.

6-02.3(7) Vacant

This section, including title, is revised to read:

6-02.3(7) Tolerances

Unless noted otherwise, concrete construction tolerances shall be in accordance with this section. Tolerances in this section do not apply to cement concrete pavement.

Horizontal deviation of roadway crown points, cross-slope break points, and curb, barrier or railing edges from alignment or work line: ±1.0 inch

Deviation from plane: ±0.5 inch in 10 feet

Deviation from plane for roadway surfaces: ±0.25 inch in 10 feet

Deviation from plumb or specified batter: ±0.5 inch in 10 feet, but not to exceed a total of ±1.5 inches

Vertical deviation from profile grade for roadway surfaces: ±1 inch

Vertical deviation of top surfaces (except roadway surfaces): ±0.75 inch

Thickness of bridge decks and other structural slabs not at grade: ±0.25 inch
Length, width and thickness of elements such as columns, beams, crossbeams, diaphragms, corbels, piers, abutments and walls, including dimensions to construction joints in initial placements: +0.5 inch, -0.25 inch

Length, width and thickness of spread footing foundations: +2 inches, -0.5 inch

Horizontal location of the as-placed edge of spread footing foundations: The greater of ±2% of the horizontal dimension of the foundation perpendicular to the edge and ±0.5 inch. However, the tolerance shall not exceed ±2 inches.

Location of opening, insert or embedded item at concrete surface: ±0.5 inch

Cross-sectional dimensions of opening: ±0.5 inch

Bridge deck, bridge approach slab, and bridge traffic barrier expansion joint gaps with a specified temperature range, measured at a stable temperature: ±0.25 inch

Horizontal deviation of centerline of bearing pad, oak block or other bearing assembly: ±0.125 inch

Horizontal deviation of centerline of supported element from centerline of bearing pad, oak block or other bearing assembly ±0.25 inch

Vertical deviation of top of bearing pad, oak block or other bearing assembly: ±0.125 inch

6-02.3(10)C Finishing Equipment

The first paragraph is revised to read:

The finishing machine shall be self-propelled and be capable of forward and reverse movement under positive control. The finishing machine shall be equipped with augers and a rotating cylindrical single or double drum screed. The finishing machine shall have the necessary adjustments to produce the required cross section, line, and grade. The finishing machine shall be capable of raising the screeds, augers, and any other parts of the finishing mechanical operation to clear the screeded surface, and returning to the specified grade under positive control. Unless otherwise allowed by the Engineer, a finishing machine manufacturer technical representative shall be on site to assist the first use of the machine on the Contract.

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

For bridge deck widening of 20 feet or less, and for bridge approach slabs, or where jobsite conditions do not allow the use of the conventional configuration finishing machines, or modified conventional machines as described above; the Contractor may submit a Type 2 Working Drawing proposing the use of a hand-operated motorized power screed such as a "Texas" or "Bunyan" screed.

6-02.3(10)D4 Monitoring Bridge Deck Concrete Temperature After Placement

This section, including title, is revised to read:

6-02.3(10)D4 Vacant
6-02.3(10)D5 Bridge Deck Concrete Finishing and Texturing
In the third subparagraph of the first paragraph, the last sentence is revised to read:

The Contractor shall texture the bridge deck surface to within 3-inches minimum and
24-inches maximum of the edge of concrete at expansion joints, within 1-foot minimum
and 2-feet maximum of the curb line, and within 3-inches minimum and 9-inches
maximum of the perimeter of bridge drain assemblies.

6-02.3(10)F Bridge Approach Slab Orientation and Anchors
The second to last paragraph is revised to read:

The compression seal shall be a 2½ inch wide gland and shall conform to Section 9-
04.1(4).

The last paragraph is deleted.

6-02.3(13)A Strip Seal Expansion Joint System
In item number 3 of the third paragraph, “Federal Standard 595” is revised to read “SAE
AMS Standard 595”.

6-02.3(13)B Compression Seal Expansion Joint System
The first paragraph is revised to read:

Compression seal glands shall conform to Section 9-04.1(4) and be sized as shown in
the Plans.

6-02.3(14)C Pigmented Sealer for Concrete Surfaces
This section is supplemented with the following new paragraph:

Pigmented Sealer Materials shall be a product listed in the current WSDOT Qualified
Products List (QPL). If the pigmented sealer material is not listed in the current WSDOT
QPL, a sample shall be submitted to the State Materials Laboratory in Tumwater for
evaluation and acceptance in accordance with Section 9-08.3.

6-02.3(20) Grout for Anchor Bolts and Bridge Bearings
The second, third and fourth paragraphs are revised to read:

Grout shall be a workable mix with a viscosity that is suitable for the intended
application. Grout shall not be placed outside of the manufacturer recommended range
of thickness. The Contractor shall receive concurrence from the Engineer before using
the grout.

Field grout cubes and cylinders shall be fabricated and tested in accordance with
Section 9-20.3 when requested by the Engineer, but not less than once per bridge pier
or once per day.

Before placing grout, the substrate on which it is to be placed shall be prepared as
recommended by the manufacturer to ensure proper bonding. The grout shall be cured
as recommended by the manufacturer. The grout may be loaded when a minimum of
4,000 psi compressive strength is attained.

The fifth paragraph is deleted.
6-02.3(23) Opening to Traffic

This section is supplemented with the following new paragraph:

After curing bridge approach slabs in accordance with Section 6-02.3(11), the bridge approach slabs may be opened to traffic when a minimum compressive strength of 2,500 psi is achieved.

6-02.3(24)C Placing and Fastening

This section is revised to read:

The Contractor shall position reinforcing steel as the Plans require and shall ensure that the steel is set within specified tolerances. Adjustments to reinforcing details outside of specified tolerances to avoid interferences and for other purposes are acceptable when approved by the Engineer.

When spacing between bars is 1 foot or more, they shall be tied at all intersections. When spacing is less than 1 foot, every other intersection shall be tied. If the Plans require bundled bars, they shall be tied together with wires at least every 6 feet. All epoxy-coated bars in the top mat of the bridge deck shall be tied at all intersections, however they may be tied at alternate intersections when spacing is less than 1 foot in each direction and they are supported by continuous supports meeting all other requirements of supports for epoxy-coated bars. Other epoxy-coated bars shall also be tied at all intersections, but shall be tied at alternate intersections when spacing is less than 1 foot in each direction. Wire used for tying epoxy-coated reinforcing steel shall be plastic coated. **Tack welding is not permitted on reinforcing steel.**

Abrupt bends in the steel are permitted only when one steel member bends around another. Vertical stirrups shall pass around main reinforcement or be firmly attached to it.

For slip-formed concrete, the reinforcing steel bars shall be tied at all intersections and cross braced to keep the cage from moving during concrete placement. Cross bracing shall be with additional reinforcing steel. Cross bracing shall be placed both longitudinally and transversely.

After reinforcing steel bars are placed in a traffic or pedestrian barrier and prior to slip-form concrete placement, the Contractor shall check clearances and reinforcing steel bar placement. This check shall be accomplished by using a template or by operating the slip-form machine over the entire length of the traffic or pedestrian barrier. All clearance and reinforcing steel bar placement deficiencies shall be corrected by the Contractor before slip-form concrete placement.

Precast concrete supports (or other accepted devices) shall be used to maintain the concrete coverage required by the Plans. The precast concrete supports shall:

1. Have a bearing surface measuring not greater than 2 inches in either dimension, and
2. Have a compressive strength equal to or greater than that of the concrete in which they are embedded.
In slabs, each precast concrete support shall have either: (1) a grooved top that will hold the reinforcing bar in place, or (2) an embedded wire that protrudes and is tied to the reinforcing steel. If this wire is used around epoxy-coated bars, it shall be coated with plastic.

Precast concrete supports may be accepted based on a Manufacturer’s Certificate of Compliance.

In lieu of precast concrete supports, the Contractor may use metal or all-plastic supports to hold uncoated bars. Any surface of a metal support that will not be covered by at least ½ inch of concrete shall be one of the following:

1. Hot-dip galvanized after fabrication in keeping with AASHTO M232 Class D;
2. Coated with plastic firmly bonded to the metal. This plastic shall be at least 3/32 inch thick where it touches the form and shall not react chemically with the concrete when tested in the State Materials Laboratory. The plastic shall not shatter or crack at or above -5°F and shall not deform enough to expose the metal at or below 200°F; or
3. Stainless steel that meet the requirements of ASTM A493, Type 302. Stainless steel chair supports are not required to be galvanized or plastic coated.

In lieu of precast concrete supports, epoxy-coated reinforcing bars may be supported by one of the following:

1. Metal supports coated entirely with a dielectric material such as epoxy or plastic,
2. Other epoxy-coated reinforcing bars, or
3. All-plastic supports.

Damaged coatings on metal bar supports shall be repaired prior to placing concrete.

All-plastic supports shall be lightweight, non-porous, and chemically inert in concrete. All-plastic supports shall have rounded seatings, shall not deform under load during normal temperatures, and shall not shatter or crack under impact loading in cold weather. All-plastic supports shall be placed at spacings greater than 1 foot along the bar and shall have at least 25 percent of their gross place area perforated to compensate for the difference in the coefficient of thermal expansion between plastic and concrete. The shape and configuration of all-plastic supports shall permit complete concrete consolidation in and around the support.

A “mat” is two adjacent and perpendicular layers of reinforcing steel. In bridge decks, top and bottom mats shall be supported adequately enough to hold both in their proper positions. If bar supports directly support, or are directly supported on No. 4 bars, they shall be spaced at not more than 3-foot intervals (or not more than 4-foot intervals for bars No. 5 and larger). Wire ties to girder stirrups shall not be considered as supports. To provide a rigid mat, the Contractor shall add other supports and tie wires to the top mat as needed.
Unless noted otherwise, the minimum concrete cover for main reinforcing bars shall be:

3 inches to a concrete surface deposited against earth without intervening forms.

2½ inches to the top surface of a concrete bridge deck or bridge approach slab.

2 inches to a concrete surface when not specified otherwise in this section or in the Contract documents.

1½ inches to a concrete barrier or curb surface.

Except for top cover in bridge decks and bridge approach slabs, minimum concrete cover to ties and stirrups may be reduced by ½ inch but shall not be less than 1 inch. Minimum concrete cover shall also be provided to the outermost part of mechanical splices and headed steel reinforcing bars.

Reinforcing steel bar location, concrete cover and clearance shall not vary more than the following tolerances from what is specified in the Contract documents:

Reinforcing bar location for members 12 inches or less in thickness: ±0.25 inch

Reinforcing bar location for members greater than 12 inches in thickness: ±0.375 inch

Reinforcing bar location for bars placed at equal spacing within a plane: the greater of either ±1 inch or ±1 bar diameter within the plane. The total number of bars shall not be fewer than that specified.

The clearance between reinforcement shall not be less than the greater of the bar diameter or 1 inch for unbundled bars. For bundled bars, the clearance between bundles shall not be less than the greater of 1 inch or a bar diameter derived from the equivalent total area of all bars in the bundle.

Longitudinal location of bends and ends of bars: ±1 inch

Embedded length of bars and length of bar lap splices:

No. 3 through No. 11: -1 inch

No. 14 through No. 18: -2 inches

Concrete cover measured perpendicular to concrete surface (except for the top surface of bridge decks, bridge approach slabs and other roadway surfaces): ±0.25 inch

Concrete cover measured perpendicular to concrete surface for the top surface of bridge decks, bridge approach slabs and other roadway surfaces: +0.25 inch, -0 inch

Before placing any concrete, the Contractor shall:

1. Clean all mortar from reinforcement, and
2. Obtain the Engineer’s permission to place concrete after the Engineer has inspected the placement of the reinforcing steel. (Any concrete placed without the Engineer’s permission shall be rejected and removed.)

6-02.3(25)H Finishing
The last paragraph is revised to read:

The Contractor may repair defects in prestressed concrete girders in accordance with Section 6-01.16.

6-02.3(25)I Fabrication Tolerances
Item number 12 of the first paragraph is revised to read:

12. Stirrup Projection from Top of Girder:

- Wide flange thin deck and slab girders: ± ½ inch
- All other girders: ± ¾ inch

6-02.3(27) Concrete for Precast Units
The last sentence of the first paragraph is revised to read:

Type III portland cement or blended hydraulic cement is permitted to be used in precast concrete units.

6-02.3(28)B Casting
In the second paragraph, the reference to Section 6-02.3(25)B is revised to read Section 6-02.3(25)C.

6-02.3(28)D Contractors Control Strength
In the first paragraph, “WSDOT FOP for AASHTO T 23” is revised to read “FOP for AASHTO T 23”.

6-02.3(28)E Finishing
This section is supplemented with the following:

The Contractor may repair defects in precast panels in accordance with Section 6-01.16.

6-03.AP6 Section 6-03, Steel Structures
January 7, 2019

6-03.2 Materials
In the first paragraph, the material reference for Paints is revised to read:

Paints and Related Materials 9-08

6-03.3(25)A3 Ultrasonic Inspection
The first paragraph (up until the colon) is revised to read:
Complete penetration groove welds on plates 5/16 inch and thicker in the following welded assemblies or Structures shall be 100 percent ultrasonically inspected:

**6-03.3(33) Bolted Connections**

The first paragraph is supplemented with the following:

After final tightening of the fastener components, the threads of the bolts shall at a minimum be flush with the end of the nut.

The following is inserted after the third sentence of the fourth paragraph:

When galvanized bolts are specified, tension-control galvanized bolts are not permitted.

**6-05.AP6 Section 6-05, Piling**  
**January 2, 2018**

**6-05.3(9)A Pile Driving Equipment Approval**

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

For prestressed concrete piles, the allowable driving stress in kips per square inch shall be $0.095 \cdot \sqrt{f'_c}$ plus prestress in tension, and $0.85f'_c$ minus prestress in compression, where $f'_c$ is the concrete compressive strength in kips per square inch.

**6-07.AP6 Section 6-07, Painting**  
**January 7, 2019**

**6-07.1 Description**

The first sentence is revised to read:

This work consists of containment, surface preparation, shielding adjacent areas from work, testing and disposing of debris, furnishing and applying paint, and cleaning up after painting is completed.

**6-07.2 Materials**

The material reference for Paint is revised to read:

Paint and Related Materials  9-08

**6-07.3(1)A Work Force Qualifications for Shop Application of Paint**

This section is supplemented with the following new sentence:

The work force may be accepted based on the approved facility.

**6-07.3(1)B Work Force Qualifications for Field Application of Paint**

The first two paragraphs are revised to read:
The Contractor preparing the surface and applying the paint shall be certified under SSPC - QP 1 or NACE International Institute Contractor Accreditation Program (NIICAP) AS 1.

The Contractor removing and otherwise disturbing existing paint containing lead and other hazardous materials shall be certified under SSPC-QP 2, Category A or NIICAP AS 2.

The third paragraph (up until the colon) is revised to read:

In lieu of the above SSPC or NIICAP certifications, the Contractor performing the specified work shall complete both of the following actions:

Item number 2 of the third paragraph is revised to read:

2. The Contractor’s quality control inspector(s) for the project shall be NACE-certified CIP Level 3 or SSPC Protective Coating Inspector (PCI) Level 3.

6-07.3(2) Submittals

The first paragraph is supplemented with the following:

Each component of the plan shall identify the specification section it represents.

6-07.3(2)B Contractor’s Quality Control Program Submittal Component

The numbered list in the first paragraph is revised to read:

1. Description of the inspection procedures, tools, techniques and the acceptance criteria for all phases of work.

2. Procedure for implementation of corrective action for non-conformance work.

3. The paint system manufacturer’s recommended methods of preventing defects.

4. The Contractor’s frequency of quality control inspection for each phase of work.

5. Example of each completed form(s) of the daily quality control report used to document the inspection work and tests performed by the Contractor’s quality control personnel.

6-07.3(2)C Paint System Manufacturer and Paint System Information Submittal Component

Item number 1 is revised to read:

1. Product data sheets and Safety Data Sheets (SDS) on the paint materials, paint preparation, and paint application, as specified by the paint manufacturer, including:

   a. All application instructions, including the mixing and thinning directions.

   b. Recommended spray nozzles and pressures.

   c. Minimum and maximum drying time between coats.
d. Restrictions on temperature and humidity.

e. Repair procedures for shop and field applied coatings.

f. Maximum dry film thickness for each coat.

g. Minimum wet film thickness for each coat to achieve the specified minimum dry film thickness.

6-07.3(2)D Hazardous Waste Containment, Collection, Testing, and Disposal Submittal Component

The first paragraph (up until the colon) is revised to read:

The hazardous waste containment, collection, testing, and disposal shall meet all Federal and State requirements, and the submittal component of the painting plan shall include the following:

6-07.3(2)E Cleaning and Surface Preparation Submittal Component

Item 1(b) of the first paragraph is revised to read:

b. Type, manufacturer, and brand of abrasive blast material and all associated additives, including Safety Data Sheets (SDS).

6-07.3(3)B Quality Control and Quality Assurance for Field Application of Paint

The last sentence of the first paragraph (excluding the numbered list) is revised to read:

The Contractor’s quality control operations shall include a minimum monitoring and documenting the following for each working day:

Item number 1 in the fourth paragraph is revised to read:

1. Environmental conditions for painting in accordance with ASTM E 337.

Item number 4 in the fourth paragraph is revised to read:

4. Pictorial of surface preparation guides in accordance with SSPC-VIS 1, 3, 4, and 5.

Item number 5 in the fourth paragraph is revised to read:

5. Surface profile by Keanne-Tator comparator in accordance with ASTM D 4417 and SSPC PA17.

6-07.3(4) Paint System Manufacturer’s Technical Representative

This section is revised to read:

The paint system manufacturer’s representative shall be present at the jobsite for the pre-painting conference and for the first day of paint application, and shall be available to the Contractor and Contracting Agency for consultation for the full project duration.

6-07.3(5) Pre-Painting Conference

The second paragraph is revised to read:
If the Contractor's key personnel change between any work operations, an additional conference shall be held if requested by the Engineer.

6-07.3(6)A Paint Containers
In item number 2 of the first paragraph, “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

6-07.3(6)B Paint Storage
Item number 2 of the second paragraph is revised to read:

2. The Contractor shall monitor and document daily the paint material storage facility with a high-low recording thermometer device.

6-07.3(7) Paint Sampling and Testing
The first two paragraphs are revised to read:

The Contractor shall provide the Engineer 1 quart of each paint representing each lot. Samples shall be accompanied with a Safety Data Sheet.

If the quantity of paint required for each component of the paint system for the entire project is 20 gallons or less, then the paint system components will be accepted as specified in Section 9-08.1(7).

6-07.3(8)A Paint Film Thickness Measurement Gages
The first paragraph is revised to read:

Paint dry film thickness measurements shall be performed with either a Type 1 pull-off gage or a Type 2 electronic gage as specified in SSPC Paint Application Specification No. 2, Procedure for Determining Conformance to Dry Coating Thickness Requirements.

6-07.3(9) Painting New Steel Structures
The last sentence of the second paragraph is revised to read:

Welded shear connectors are not required to painted.

The last paragraph is revised to read:

Temporary attachments or supports for scaffolding, containment or forms shall not damage the paint system.

6-07.3(9)A Paint System
The first paragraph is revised to read:

The paint system applied to new steel surfaces shall consist of the following:

Option 1 (component based paint system):

Primer Coat – Inorganic Zinc Rich 9-08.1(2)C
Intermediate Coat – Moisture Cured Polyurethane 9-08.1(2)G
Intermediate Stripe Coat – Moisture Cured Polyurethane 9-08.1(2)G
Top Coat – Moisture Cured Polyurethane 9-08.1(2)H

Option 2 (performance based paint system):

<table>
<thead>
<tr>
<th>Coat Type</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer Coat – Inorganic Zinc Rich</td>
<td>9-08.1(2)M</td>
</tr>
<tr>
<td>Intermediate Coat – Epoxy</td>
<td>9-08.1(2)M</td>
</tr>
<tr>
<td>Intermediate Stripe Coat – Epoxy</td>
<td>9-08.1(2)M</td>
</tr>
<tr>
<td>Top Coat – Polyurethane</td>
<td>9-08.1(2)M</td>
</tr>
</tbody>
</table>

The following new paragraph is inserted after the first paragraph:

Paints and related materials shall be products listed in the current WSDOT Qualified Products List (QPL). Component based paint systems shall be listed on the QPL in the applicable sections of Section 9-08. Performance based systems shall be listed on the current Northeast Protective Coatings Committee (NEPCOAT) Qualified Products List “A” as listed on the WSDOT QPL in Section 9-08.1(2)M. If the paint and related materials for the component based system is not listed in the current WSDOT QPL, a sample shall be submitted to the State Materials Laboratory in Tumwater for evaluation and acceptance in accordance with Section 9-08.

### 6-07.3(9)C Mixing and Thinning Paint

This section is revised to read:

The Contractor shall thoroughly mix paint in accordance with the manufacturer’s written recommendations and by mechanical means to ensure a uniform and lump free composition. Paint shall not be mixed by means of air stream bubbling or boxing. Paint shall be mixed in the original containers and mixing shall continue until all pigment or metallic powder is in suspension. Care shall be taken to ensure that the solid material that has settled to the bottom of the container is thoroughly dispersed. After mixing, the Contractor shall inspect the paint for uniformity and to ensure that no unmixed pigment or lumps are present.

Catalysts, curing agents, hardeners, initiators, or dry metallic powders that are packaged separately may be added to the base paint in accordance with the paint manufacturer’s written recommendations and only after the paint is thoroughly mixed to achieve a uniform mixture with all particles wetted. The Contractor shall then add the proper volume of curing agent to the correct volume of base and mix thoroughly. The mixture shall be used within the pot life specified by the manufacturer. Unused portions shall be discarded at the end of each work day. Accelerants are not permitted except as allowed by the Engineer.

The Contractor shall not add additional thinner at the application site except as allowed by the Engineer. The amount and type of thinner, if allowed, shall conform to the manufacturer’s specifications. If recommended by the manufacturer and allowed by the Engineer, a measuring cup shall be used for the addition of thinner to any paint with graduations in ounces. No un-measured addition of thinner to paint will be allowed. Any paint found to be thinned by unacceptable methods will be rejected.

When recommended by the manufacturer, the Contractor shall constantly agitate paint during application by use of paint pots equipped with mechanical agitators.
The Contractor shall strain all paint after mixing to remove undesirable matter, but without removing the pigment or metallic powder.

Paint shall be stored and mixed in a secure, contained location to eliminate the potential for spills into State waters and onto the ground and highway surfaces.

6-07.3(9)D Coating Thickness
This section is revised to read:

Dry film thickness shall be measured in accordance with SSPC Paint Application Specification No. 2, Procedure for Determining Conformance to Dry Coating Thickness Requirements.

The minimum dry film thickness of the primer coat shall not be less than 2.5 mils.

The minimum dry film thickness of each coat (combination of intermediate and intermediate stripe, and top) shall be not less than 3.0 mils.

The dry film thickness of each coat shall not be thicker than the paint manufacturer’s recommended maximum thickness.

The minimum wet film thickness of each coat shall be specified by the paint manufacturer to achieve the minimum dry film thickness.

Film thickness, wet and dry, will be measured by gages conforming to Section 6-07.3(8)A.

Wet measurements will be taken immediately after the paint is applied in accordance with ASTM D4414. Dry measurements will be taken after the coating is dry and hard in accordance with SSPC Paint Application Specification No. 2.

Each painter shall be equipped with wet film thickness gages and shall be responsible for performing frequent checks of the paint film thickness throughout application.

Coating thickness measurements may be made by the Engineer after the application of each coat and before the application of the succeeding coat. In addition, the Engineer may inspect for uniform and complete coverage and appearance. One hundred percent of all thickness measurements shall meet or exceed the minimum wet film thickness. In areas where wet film thickness measurements are impractical, dry film thickness measurements may be made. If a question arises about an individual coat’s thickness or coverage, it may be verified by the use of a Tooke gage in accordance with ASTM D4138.

If the specified number of coats does not produce a combined dry film thickness of at least the sum of the thicknesses required per coat, if an individual coat does not meet the minimum thickness, or if visual inspection shows incomplete coverage, the coating system will be rejected and the Contractor shall discontinue painting and surface preparation operations and shall submit a Type 2 Working Drawing of the repair proposal. The repair proposal shall include documentation demonstrating the cause of the less-than-minimum thickness, along with physical test results, as necessary, and modifications to Work methods to prevent similar results. The Contractor shall not
resume painting or surface preparation operations until receiving the Engineer’s acceptance of the completed repair.

6-07.3(9)E  Surface Temperature Requirements Prior to Application of Paint
This section, including title, is revised to read:

6-07.3(9)E  Environmental Condition Requirements Prior to Application of Paint
Paint shall be applied only during periods when:

1. Air and steel temperatures are in accordance with the paint manufacturer’s recommendations but in no case less than 35°F nor greater than 115°F.
2. Steel surface temperature is a minimum of 5°F above the dew point.
3. Steel surface is not wet.
4. Relative humidity is within the manufacturer’s recommended range.
5. The anticipated ambient temperature will remain above 35°F or the manufacturer’s minimum temperature, whichever is greater, during the paint drying and curing period.

Application will not be allowed if conditions are not favorable for proper application and performance of the paint.

Paint shall not be applied when weather conditions are unfavorable to proper curing. If a paint system manufacturer’s recommendations allow for application of a paint under environmental conditions other than those specified, the Contractor shall submit a Type 2 Working Drawing consisting of a letter from the paint manufacturer specifying the environmental conditions under which the paint can be applied. Application of paint under environmental conditions other than those specified in this section will not be allowed without the Engineer’s concurrence.

6-07.3(9)F  Shop Surface Cleaning and Preparation
The last sentence is revised to read:

The entire steel surface to be painted, including surfaces specified in Section 6-07.3(9)G to receive a mist coat of primer, shall be cleaned to a near white condition in accordance with SSPC-SP 10, Near-white Metal Blast Cleaning, and shall be in this condition immediately prior to paint application.

6-07.3(9)G  Application of Shop Primer Coat
The first paragraph is supplemented with the following:

Repairs of the shop primer coat shall be prepared in accordance with the painting plan.
Shop primer coat repair paint shall be selected from the approved component based or performance based paint system in accordance with Section 6-07.3(10)H.

6-07.3(9)H  Containment for Field Coating
This section is revised to read:
The Contractor shall use a containment system in accordance with Section 6-07.3(10)A for surface preparation and prime coating of all uncoated areas remaining, including bolts, nuts, washers, and splice plates.

During painting operations of the intermediate, stripe and top coats the Contractor shall furnish, install, and maintain drip tarps below the areas to be painted to contain all spilled paint, buckets, brushes, and other deleterious material, and prevent such materials from reaching the environment below or adjacent to the structure being painted. Drip tarps shall be absorbent material and hung to minimize puddling. The Contractor shall evaluate the project-specific conditions to determine the specific type and extent of containment needed to control the paint emissions and shall submit a containment plan in accordance with Section 6-07.3(2).

6-07.3(9)I Application of Field Coatings

This section is revised to read:

An on-site supervisor shall be present for each work shift at the bridge site.

Upon completion of erection Work, all uncoated or damaged areas remaining, including bolts, nuts, washers, and splice plates, shall be prepared in accordance with Section 6-07.3(9)F, followed by a field primer coat of a zinc-rich primer and final coats of paint selected from the approved component or performance based paint system in accordance with Section 6-07.3(10)H. The intermediate, intermediate stripe, and top coats shall be applied in accordance with the manufacturer’s written recommendations.

Upon completion of erection Work, welds for steel column jackets may be prepared in accordance with SSPC-SP 15, Commercial Grade Power Tool Cleaning.

The minimum drying time between coats shall be as shown in the product data sheets, but not less than 12 hours. The Contractor shall determine whether the paint has cured sufficiently for proper application of succeeding coats.

The maximum time between intermediate and top coats shall be in accordance with the manufacturer’s written recommendations. If the maximum time between coats is exceeded, all newly coated surfaces shall be prepared to SSPC-SP 7, Brush-off Blast Cleaning, and shall be repainted with the same paint that was cleaned, at no additional cost to the Contracting Agency.

Each coat shall be applied in a uniform layer, completely covering the preceding coat. The Contractor shall correct runs, sags, skips, or other deficiencies before application of succeeding coats. Such corrective work may require re-cleaning, application of additional paint, or other means as determined by the Engineer, at no additional cost to the Contracting Agency.

Dry film thickness measurements will be made in accordance with Section 6-07.3(9)D.

All paint damage that occurs shall be repaired in accordance with the manufacturer’s written recommendations. On bare areas or areas of insufficient primer thickness, the repair shall include field-applied zinc-rich primer and the final coats of paint selected from the approved component or performance based paint system in accordance with Section 6-07.3(10)H. On areas where the primer is at least equal to the minimum required dry film thickness, the repair shall include the application of the final two coats.
of the paint system. All paint repair operations shall be performed by the Contractor at
no additional cost or time to the Contracting Agency.

6-07.3(10)A Containment
The first sentence of the third paragraph is revised to read:

Emissions shall be assessed by Visible Emission Observations (Method A) in SSPC
Technology Update No. 7, Conducting Ambient Air, Soil, and Water Sampling of
Surface Preparation and Paint Disturbance Activities, Section 6.2 and shall be limited to
the Level A Acceptance Criteria Option Level 0 Emissions standard.

6-07.3(10)D Surface Preparation Prior to Overcoat Painting
The first paragraph is revised to read:

The Contractor shall remove any visible oil, grease, and road tar in accordance with
SSPC-SP 1, Solvent Cleaning.

The second paragraph is revised to read:

Following any preparation by SSPC-SP1, all steel surfaces to be painted shall be
prepared in accordance with SSPC-SP 7, Brush-off Blast Cleaning. Surfaces
inaccessible to brush-off blast shall be prepared in accordance with SSPC-SP 3, Power
Tool Cleaning, as allowed by the Engineer.

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

Following brush-off blast cleaning, the Contractor shall perform spot abrasive blast
cleaning in accordance with SSPC-SP 6, Commercial Blast Cleaning.

The second to last sentence of the third paragraph is revised to read:

For small areas, as allowed by the Engineer, the Contractor may substitute cleaning in
accordance with SSPC-SP 15, Commercial Grade Power Tool Cleaning.

6-07.3(10)G Treatment of Pack and Rust Gaps
The second paragraph is revised to read:

Pack rust forming a gap between steel surfaces of $\frac{1}{8}$ to $\frac{1}{4}$ inch shall be cleaned to a
depth of at least one half of the gap width. The gaps shall be cleaned and prepared in
accordance with SSPC-SP6. The cleaned gap shall be treated with rust penetrating
sealer, prime coated, and then caulked to form a watertight seal along the top edge and
the two sides of the steel pieces involved, using the rust penetrating sealer and caulk as
accepted by the Engineer. The bottom edge or lowest edge of the steel pieces involved
shall not be caulked.

The third paragraph is supplemented with the following:

Caulk shall be a single-component urethane sealant conforming to Section 9-08.7.

The fifth paragraph is revised to read:
At locations where gaps between steel surfaces exceed ¼ inch, the Contractor shall clean and prepare the gap in accordance SSPC-SP6, apply the rust penetrating sealer, apply the prime coat, and then fill the gap with foam backer rod material as accepted by the Engineer. The foam backer rod material shall be of sufficient diameter to fill the crevice or gap. The Contractor shall apply caulk over the foam backer rod material to form a watertight seal.

This section is supplemented with the following new paragraph:

Caulk and backer rod, if needed, shall be placed prior to applying the top coat. The Contractor, with the concurrence of the Engineer, may apply the rust penetrating sealer after application of the prime coat provided the primer is removed in the areas to be sealed. The areas to be sealed shall be re-cleaned and re-prepared in accordance with SSPC-SP6.

6-07.3(10)H Paint System

The first paragraph is revised to read:

The paint system applied to existing steel surfaces shall consist of the following five-coat system:

Option 1 (component based system):

- Primer Coat – Zinc-filled Moisture Cured Polyurethane 9-08.1(2)F
- Primer Stripe Coat - Moisture Cured Polyurethane 9-08.1(2)F
- Intermediate Coat - Moisture Cured Polyurethane 9-08.1(2)G
- Intermediate Stripe Coat - Moisture Cured Polyurethane 9-08.1(2)G
- Top Coat - Moisture Cured Polyurethane 9-08.1(2)H

Option 2 (performance based system):

- Primer Coat – Zinc-rich Epoxy 9-08.1(2)N
- Primer Stripe Coat – Epoxy 9-08.1(2)N
- Intermediate Coat – Epoxy 9-08.1(2)N
- Intermediate Stripe Coat – Epoxy 9-08.1(2)N
- Top Coat – Polyurethane 9-08.1(2)N

The following new paragraph is inserted after the first paragraph:

Paints and related materials shall be a product listed in the current WSDOT Qualified Products List (QPL). Component based paint systems shall be listed on the QPL in the applicable sections of Section 9-08. Performance based systems shall be listed on the current Northeast Protective Coatings Committee (NEPCOAT) Qualified Products List “B” as listed on the WSDOT QPL in Section 9-08.1(2)N. If the paint and related material for the component based system is not listed in the current WSDOT QPL, a sample shall be submitted to the State Materials Laboratory in Tumwater for evaluation and acceptance in accordance with Section 9-08.

6-07.3(10)J Mixing and Thinning Paint

This section is revised to read:

Mixing and thinning paint shall be in accordance with Section 6-07.3(9)C.
6-07.3(10)K Coating Thickness
This section is revised to read:

Coating thickness shall be in accordance with Section 6-07.3(9)D except the minimum
dry film thickness of each coat (combination of primer and primer stripe, combination of
intermediate and intermediate stripe, and top) shall not be less than 3.0 mils.

6-07.3(10)L Environmental Condition Requirements Prior to Application of
Paint
This section is revised to read:

Environmental conditions shall be in accordance with Section 6-07.3(9)E.

6-07.3(10)M Steel Surface Condition Requirements Prior to Application of
Paint
The third paragraph is revised to read:

Edges of existing paint shall be feathered in accordance with SSPC-PA 1, Shop, Field,
and Maintenance Coating of Metals, Note 15.20.

6-07.3(10)N Field Coating Application Methods
The third sentence is revised to read:

The Contractor may apply stripe coat paint using spray or brush but shall follow spray
application using a brush to ensure complete coverage around structural geometric
irregularities and to push the paint into gaps between existing steel surfaces and around
rivets and bolts.

6-07.3(10)O Applying Field Coatings
The second to last paragraph is revised to read:

Each application of primer, primer stripe, intermediate, intermediate stripe, and top coat
shall be considered as separately applied coats. The Contractor shall not use a
preceding or subsequent coat to remedy a deficiency in another coat. The Contractor
shall apply the top coat to at least the minimum specified top coat thickness, to provide
a uniform appearance and consistent finish coverage.

6-07.3(10)P Field Coating Repair
The second sentence is revised to read:

Repair areas shall be cleaned of all damaged paint and the system reapplied using all
coats typical to the paint system and shall meet the minimum coating thickness.

6-07.3(11)A Painting of Galvanized Surfaces
This section is revised to read:

All galvanized surfaces receiving paint shall be prepared for painting in accordance with
the ASTM D 6386. The method of preparation shall be brush-off in accordance with
SSPC-SP16 Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel,
Stainless Steels, and Non-Ferrous Metals or as otherwise allowed by the Engineer. The
Contractor shall not begin painting until receiving the Engineer’s acceptance of the prepared galvanized surface. For galvanized bolts used for replacement of deteriorated existing rivets, the Contractor, with the concurrence of the Engineer and after successful demonstration testing, may prepare galvanized surfaces in accordance with SSPC-SP1 followed by SSPC-SP2, Hand Tool Cleaning or SSPC-SP3, Power Tool Cleaning. The demonstration testing shall include adhesion testing of the first coat of paint over galvanized bolts, nuts, and washers or a representative galvanized surface. Adhesion testing shall be performed in accordance with ASTM D 4541 for 600 psi minimum adhesion. A minimum of 3 successful tests shall be performed on the galvanized surface prepared and painted using the same methods and materials to be used on the galvanized bolts, nuts and washers in the field.

6-07.3(11)A2 Paint Coat Materials

This section is revised to read:

The Contractor shall paint the dry surface as follows:

1. The first coat over a galvanized surface shall be an epoxy polyamide conforming to Section 9-08.1(2)E. In the case of galvanized bolts used for replacement of deteriorated existing rivets and for small surface areas less than or equal to one square foot, an intermediate moisture cured polyurethane conforming to Section 9-08.1(2)G may be used as a first coat. In both cases the first coat shall be compatible with galvanizing and as recommended by the top coat manufacturer.

2. The second coat shall be a top coat moisture cured aliphatic polyurethane conforming to Section 9-08.1(2)H or a top coat polyurethane conforming to Section 6-07.3(10)H Option 2 NEPCOAT performance based paint specification compatible with the first coat as recommended by the manufacturer.

Each coat shall be dry before the next coat is applied. All coats applied in the shop shall be dried hard before shipment.

6-07.3(11)B Powder Coating of Galvanized Surfaces

This section is revised to read:

Powder coating of galvanized surfaces shall consist of the following coats:

1. The first coat shall be an epoxy powder primer coat conforming to Section 9-08.2.

2. The second coat shall be a polyester finish coat conforming to Section 9-08.2.

6-07.3(11)B3 Galvanized Surface Cleaning and Preparation

The first three paragraphs are revised to read:

Galvanized surfaces receiving the powder coating shall be cleaned and prepared for coating in accordance with ASTM D 7803, and the project-specific powder coating plan.
Assemblies conforming to the ASTM D 7803 definition for newly galvanized steel shall receive surface smoothing and surface cleaning in accordance with ASTM D 7803, Section 5, and surface preparation in accordance with ASTM D 7803, Section 5.1.3.

Assemblies conforming to the ASTM D 7803 definition for partially weathered galvanized steel shall be checked and prepared in accordance with ASTM D 7803, Section 6, before then receiving surface smoothing and surface cleaning in accordance with ASTM D 7803, Section 5, and surface preparation in accordance with ASTM D 7803, Section 5.1.3.

The fourth paragraph (up until the colon) is revised to read:

Assemblies conforming to the ASTM D 7803 definition for weathered galvanized steel shall be prepared in accordance with ASTM D 7803, Section 7 before then receiving surface smoothing and surface cleaning in accordance with ASTM D 7803, Section 5, and surface preparation in accordance with ASTM D 7803, Section 5.3 except as follows:

6-07.3(11)B5 Testing

Item number 4 in the first paragraph is revised to read:

4. Adhesion testing in accordance with ASTM D 4541 for 600 psi minimum adhesion for the complete two-component system.

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

Rejected assemblies shall be repaired or recoated by the Contractor, at no additional expense to the Contracting Agency, in accordance with the powder coating manufacturer’s recommendation as detailed in the project-specific powder coating plan, until the assemblies satisfy the acceptance testing requirements.

6-07.3(12) Painting Ferry Terminal Structures

This section is revised to read:

Painting of ferry terminal Structures shall be in accordance with Section 6-07.3 as supplemented below.

This section is supplemented with the following new subsections:

6-07.3(12)A Painting New Steel Ferry Terminal Structures

Painting of new steel Structures shall be in accordance with Section 6-07.3(9) except that all coatings (primer, intermediate, intermediate stripe, and top) shall be applied in the shop with the following exceptions:

1. Steel surfaces to be field welded.
2. Steel surfaces to be greased.
3. The length of piles designated in the Plans not requiring painting.
The minimum drying time between coats shall be as shown in the product data sheets, but not less than 12 hours. The Contractor shall determine whether the paint has cured sufficiently for proper application of succeeding coats.

6-07.3(12)A1 Paint Systems
Paint systems for Structural Steel, which includes vehicle transfer spans and towers, pedestrian overhead loading structures and towers, upland structural steel and other elements as designated in the Special Provisions shall be as specified in Section 6-07.3(9)A.

Paint systems for Piling, Landing Aids and Life Ladders shall be as specified in the Special Provisions.

6-07.3(12)A2 Paint Color
Paint colors shall be as specified in the Special Provisions.

6-07.3(12)A3 Coating Thickness
Coating thicknesses shall be as specified in the Special Provisions.

6-07.3(12)A4 Application of Field Coatings
An on-site supervisor shall be present for each work shift at the project site.

Upon completion of erection Work, all uncoated or damaged areas remaining, including bolts, nuts, washers, splice plates, and field welds shall be prepared in accordance with SSPC-SP 1, Solvent Cleaning, followed by SSPC-SP 11, Power Tool Cleaning to Bare Metal. Surface preparation shall be measured according to SSPC-VIS 3. SSPC-SP 11 shall be performed for a minimum distance of 1 inch from the uncoated or damaged area. In addition, intact shop-applied coating surrounding the area shall be abraded or sanded for a distance of 6 inches out from the properly prepared clean/bare metal areas to provide adequate roughness for application of field coatings. All sanding dust and contamination shall be removed prior to application of field coatings.

Field applied paint for Structural Steel shall conform to Section 6-07.3(10)H, as applicable. Field applied paint for Piling, Landing Aids and Life Ladders shall be as specified in the Special Provisions.

For areas above the tidal zone, the minimum drying time between coats shall be as shown in the product data sheets, but not less than 12 hours. For areas within the tidal zone, the minimum drying time between coats shall be as recommended by the paint system manufacturer. The Contractor shall determine whether the paint has cured sufficiently for proper application of succeeding coats.

The maximum time between intermediate and top coats shall be in accordance with the manufacturer’s written recommendations. If the maximum time between coats is exceeded, all newly coated surfaces shall be prepared to SSPC-SP 3, Power Tool Cleaning, and shall be repainted with the same paint that was cleaned, at no additional cost to the Contracting Agency.

Each coat shall be applied in a uniform layer, completely covering the preceding coat. The Contractor shall correct runs, sags, skips, or other deficiencies before application of succeeding coats. Such corrective work may require re-cleaning,
application of additional paint, or other means as determined by the Engineer, at no
additional cost to the Contracting Agency.

Surface preparation for underwater locations shall consist of removing all dirt, oil,
grease, loose paint, loose rust, and marine growth from the area that is to be
repaired. The sound paint surrounding the damaged area shall be roughened to
meet the requirements of the manufacturer. Paint for underwater applications shall
be as specified in the Special Provisions and shall be applied in accordance with
the manufacturer’s recommendations.

6-07.3(12)B Painting Existing Steel Ferry Terminal Structures
Painting of existing steel structures shall be in accordance with Section 6-07.3(10) as
supplemented by the following.

6-07.3(12)B1 Containment
Containment for full removal shall be in accordance with Section 6-07.3(10)A.
Containment for overcoat systems shall be in accordance with all applicable
Permits as required in the Special Provisions.

Prior to cleaning the Contractor shall enclose all exposed electrical and mechanical
equipment to seal out dust, water, and paint. Non-metallic surfaces shall not be
abrasive blasted or painted. Unless otherwise specified, the following metallic
surfaces shall not be painted and shall be protected from abrasive blasting and
painting:

1. Galvanized and stainless steel surfaces not previously painted,
2. Non-skid surfaces,
3. Unpainted intentionally greased surfaces,
4. Equipment labels, identification plates, tags, etc.,
5. Fire and emergency containers or boxes,
6. Mechanical hardware such as hoist sheaves, hydraulic cylinders, gear
   boxes, wire rope, etc.

The Contractor shall submit a Type 2 Working Drawing consisting of materials and
equipment used to shield components specified to not be cleaned and painted.
The Contractor shall shut off the power prior to working around electrical
equipment. The Contractor shall follow the lock-out/tag-out safety provisions of the
WAC 296-803 and all other applicable safety standards.

6-07.3(12)B2 Surface Preparation
For applications above high water and within the tidal zone, surface preparation for
overcoat painting shall be in accordance with SSPC-SP 1, Solvent Cleaning,
followed by SSPC-SP 3, Power Tool Cleaning. Use of wire brushes is not allowed.
After SP 3 cleaning has been completed all surfaces exhibiting coating failure down
to the steel substrate, and those exhibiting visible corrosion, shall be prepared
down to clean bare steel in accordance with SSPC-SP 15, Commercial Grade
Power Tool Cleaning. Surface preparation shall be measured according to SSPC-
AMENDMENTS TO THE 2018 STANDARD SPECIFICATIONS BOOK
Revised: 4/1/19

VIS 3. SSPC-SP 15 shall be performed for a minimum distance of 1 inch from the area exhibiting failure or visible corrosion. In addition, intact shop-applied coating surrounding the repair area shall be abraded or sanded for a distance of 6 inches out from the properly prepared clean/bare metal areas to provide adequate roughness for application of repair coatings. All sanding dust and contamination shall be removed prior to application of repair coatings. Surface preparation for full paint removal shall be in accordance with Section 6-07.3(10)E except SSPC-SP 11 will be permitted as detailed in the Contractor’s painting plan and as allowed by the Engineer.

Surface preparation for underwater locations shall consist of removing all dirt, oil, grease, loose paint, loose rust, and marine growth from the area that is to be repaired. The sound paint surrounding the damaged area shall be roughened as required by the coating manufacturer.

Removed marine growth may be released to state waters provided the marine growth is not mixed with contaminants (paint, oil, rust, etc.) and it shall not accumulate on the sea bed. All marine growth containing contaminants shall be collected for proper disposal.

Surface preparation for the underside of bridge decks (consisting of either a steel grid system of main bars or tees and a light gauge metal form, in-filled with concrete or a corrugated light gauge metal form, infilled with concrete) shall be in accordance with SSPC-SP 2, Hand Tool Cleaning or SSPC-SP 3, Power Tool Cleaning with the intent of not causing further damage to the light gauge metal form. Following removal of any pack rust and corroded sections from the underside of the bridge deck, cleaning and flushing to remove salts and prior to applying the primer coat, the Contractor shall seal the entire underside of the deck system with rust-penetrating sealer. Damage to galvanized metal forms and/or grids shall be repaired in accordance with ASTM A 780, with the preferred method of repair using paints containing zinc dust.

6-07.3(12)B3 Paint Systems
Paint systems for Structural Steel, which includes vehicle transfer spans and towers, pedestrian overhead loading structures and towers, upland structural steel and other elements as designated in the Special Provisions shall be as specified in Section 6-07.3(10)H.

Paint systems for Piling, Landing Aids, Life Ladders, underside of vehicle transfer span bridge decks, non-skid surface treated areas, and anti-graffiti coatings shall be as specified in the Special Provisions.

6-07.3(12)B4 Paint Color
Paint colors shall be as specified in the Special Provisions.

6-07.3(12)B5 Coating Thickness
Coating thicknesses shall be as specified in the Special Provisions.

6-07.3(12)B6 Application of Field Coatings
Application of field coatings shall be in accordance with Section 6-07.3(10)O and Section 6-07.3(12)A2 except for the following:
1. All coatings applied in the field shall be applied using a brush or roller.
   Spray application methods may be used if allowed by the Engineer.

2. Applied coatings shall not be immersed until the coating has been cured
   as required by the coating manufacturer.

3. Non-skid surface treatment products shall be applied in accordance with
   the manufacturer’s recommendations.

4. Anti-graffiti coatings shall be applied in one coat following application of
   the top coat, where specified in the Plans.

6-07.3(14)B  Reference Standards
The second standard reference (to SSPC CS 23.00), and its accompanying title, is revised
 to read:

SSPC CS 23.00 Specification for the Application of Thermal Spray Coatings
(Metallizing) of Aluminum, Zinc, and Their Alloys and
Composites for the Corrosion Protection of Steel

6-08.AP6
Section 6-08, Bituminous Surfacing on Structure Decks
January 7, 2019

6-08.3(7)A  Concrete Deck Preparation
The first sentence of the first paragraph is revised to read:

The Contractor, with the Engineer, shall inspect the exposed concrete deck to establish
the extent of bridge deck repair in accordance with Section 6-09.3(6).

6-08.3(8)A  Structure Deck Preparation
The second sentence of the last paragraph is revised to read:

Prior to applying the primer or sheet membrane, all dust and loose material shall be
removed from the Structure Deck.

6-09.AP6
Section 6-09, Modified Concrete Overlays
January 7, 2019

6-09.3  Construction Requirements
This section is supplemented with the following new subsection:

6-09.3(15)  Sealing and Texturing Concrete Overlay
After the requirements for checking for bond have been met, all joints and visible cracks
shall be filled and sealed with a high molecular weight methacrylate resin (HMWM).
Cracks 1/16 inch and greater in width shall receive two applications of HMWM.
Immediately following the application of HMWM, the wetted surface shall be coated with
sand for abrasive finish.
After all cracks have been filled and sealed and the HMWM resin has cured, the concrete overlay surface shall receive a longitudinally sawn texture in accordance with Section 6-02.3(10)D5.

Traffic shall not be permitted on the finished concrete until it has reached a minimum compressive strength of 3,000 psi as verified by rebound number determined in accordance with ASTM C805 and the longitudinally sawn texture is completed.

6-09.3(1)B Rotary Milling Machines

This section is revised to read:

Rotary milling machines used to remove an upper layer of existing concrete overlay, when present, shall have a maximum operating weight of 50,000 pounds and conform to Section 6-08.3(5)B.

6-09.3(1)C Hydro-Demolition Machines

The first sentence of this section is revised to read:

Hydro-demolition machines shall consist of filtering and pumping units operating in conjunction with a remote-controlled robotic device, using high-velocity water jets to remove sound concrete to the nominal scarification depth shown in the Plans with a single pass of the machine, and with the simultaneous removal of deteriorated concrete.

6-09.3(1)D Shot Blasting Machines

This section, including title, is revised to read:

6-09.3(1)D Vacant

6-09.3(1)E Air Compressor

This section is revised to read:

Air compressors shall be equipped with oil traps to eliminate oil from being blown onto the bridge deck.

6-09.3(1)J Finishing Machine

This section is revised to read:

The finishing machine shall meet the requirements of Section 6-02.3(10) and the following requirements:

The finishing machine shall be equipped with augers, followed by an oscillating, vibrating screed, vibrating roller tamper, or a vibrating pan, followed by a rotating cylindrical double drum screed. The vibrating screed, roller tamper or pan shall be of sufficient length and width to properly consolidate the mixture. The vibrating frequency of the vibrating screed, roller tamper or pan shall be variable with positive control.

6-09.3(2) Submittals

Item number 1 and 2 are revised to read:
1. A Type 1 Working Drawing consisting of catalog cuts and operating parameters of the hydro-demolition machine selected by the Contractor for use in this project to scarify concrete surfaces.

2. A Type 1 Working Drawing consisting of catalog cuts, operating parameters, axle loads, and axle spacing of the rotary milling machine (if used to remove an upper layer of existing concrete overlay when present).

The first sentence of item number 3 is revised to read:

A Type 2 Working Drawing of the Runoff Water Disposal Plan.

6-09.3(5)A General

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

All areas of the deck that are inaccessible to the selected scarifying machine shall be scarified to remove the concrete surface matrix to a maximum nominal scarification depth shown in the Plans by a method acceptable to the Engineer.

This section is supplemented with the following:

Concrete process water generated by scarifying concrete surface and removing existing concrete overlay operations shall be contained, collected, and disposed of in accordance with Section 5-01.3(11) and Section 6-09.3(5)C, and the Section 6-09.3(2) Runoff Water Disposal Plan.

6-09.3(5)B Testing of Hydro-Demolition and Shot Blasting Machines

This section’s title is revised to read:

Testing of Hydro-Demolition Machines

The second paragraph is revised to read:

In the “sound” area of concrete, the equipment shall be programmed to remove concrete to the nominal scarification depth shown in the Plans with a single pass of the machine.

6-09.3(5)D Shot Blasting

This section, including title, is revised to read:

6-09.3(5)D Vacant

6-09.3(5)E Rotomilling

This section, including title, is revised to read:

6-09.3(5)E Removing Existing Concrete Overlay Layer by Rotomilling

When the Contractor elects to remove the upper layer of existing concrete overlay, when present, by rotomilling prior to final scarifying, the entire concrete surface of the bridge deck shall be milled to remove the surface matrix to the depth specified in the Plans with a tolerance as specified in Section 6-08.3(5)B. The operating parameters of the rotary milling machine shall be monitored in order to prevent the unnecessary removal of concrete below the specified removal depth.
6-09.3(6) Further Deck Preparation
The first paragraph 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 a visual inspection of the scarified surface. The Contractor shall mark those areas of the existing bridge deck that are authorized by the Engineer for further deck preparation by the Contractor.

- Item number 4 of the second paragraph is deleted.
- The first sentence of the third paragraph is deleted.

6-09.3(6)A Equipment for Further Deck Preparation
This section is revised to read:

Further deck preparation shall be performed using either power driven hand tools conforming to Section 6-09.3(1)A, or hydro-demolition machines conforming to Section 6-09.3(1)C.

6-09.3(6)B Deck Repair Preparation
The second paragraph is deleted.

- The last sentence of the second paragraph (after the preceding Amendment is applied) is revised to read:
  - In no case shall the depth of a sawn vertical cut exceed ¾ inch or to the top of the top steel reinforcing bars, whichever is less.
- The first sentence of the third to last paragraph is revised to read:
  - Where existing steel reinforcing bars inside deck repair areas show deterioration greater than 20-percent section loss, the Contractor shall furnish and place steel reinforcing bars alongside the deteriorated bars in accordance with the details shown in the Standard Plans.
- The last paragraph is deleted.

6-09.3(7) Surface Preparation for Concrete Overlay
The first seven paragraphs are deleted and replaced with the following:

Following the completion of any required further deck preparation the entire lane or strip being overlaid shall be cleaned to be free from oil and grease, rust and other foreign material that may still be present. These materials shall be removed by detergent-cleaning or other method accepted by the Engineer followed by sandblasting.

- After detergent cleaning and sandblasting is completed, the entire lane or strip being overlaid shall be cleaned in final preparation for placing concrete.
- Hand tool chipping, sandblasting and cleaning in areas adjacent to a lane or strip being cleaned in final preparation for placing concrete shall be discontinued when final preparation is begun. Scarifying and hand tool chipping shall remain suspended until
the concrete has been placed and the requirement for curing time has been satisfied. Sandblasting and cleaning shall remain suspended for the first 24 hours of curing time after the completion of concrete placing.

Scarification, and removal of the upper layer of concrete overlay when present, may proceed during the final cleaning and overlay placement phases of the Work on adjacent portions of the Structure so long as the scarification and concrete overlay removal operations are confined to areas which are a minimum of 100 feet away from the defined limits of the final cleaning or overlay placement in progress. If the scarification and concrete overlay removal impedes or interferes in any way with the final cleaning or overlay placement as determined by the Engineer, the scarification and concrete overlay removal Work shall be terminated immediately and the scarification and concrete overlay removal equipment removed sufficiently away from the area being prepared or overlaid to eliminate the conflict. If the grade is such that water and contaminants from the scarification and concrete overlay removal operation will flow into the area being prepared or overlaid, the scarification and concrete overlay removal operation shall be terminated and shall remain suspended for the first 24 hours of curing time after the completion of concrete placement.

6-09.3(11) Placing Concrete Overlay
The first sentence of item number 3 in the fourth paragraph is revised to read:

Concrete shall not be placed when the temperature of the concrete surface is less than 45°F or greater than 75°F, and wind velocity at the construction site is in excess of 10 mph.

6-09.3(12) Finishing Concrete Overlay
The third paragraph is deleted.

The last paragraph is deleted.

6-09.3(13) Curing Concrete Overlay
The first sentence of the first paragraph is revised to read:

As the finishing operation progresses, the concrete shall be immediately covered with a single layer of clean, new or used, wet burlap.

The last sentence of the second paragraph is deleted.

The following two new paragraphs are inserted after the second paragraph:

As an alternative to the application of burlap and fog spraying described above, the Contractor may propose a curing system using proprietary curing blankets specifically manufactured for bridge deck curing. The Contractor shall submit a Type 2 Working Drawing consisting of details of the proprietary curing blanket system, including product literature and details of how the system is to be installed and maintained.

The wet curing regimen as described shall remain in place for a minimum of 42-hours.

The last paragraph is deleted.
Section 6-10, Concrete Barrier
August 6, 2018

6-10.2 Materials

In the first paragraph, the reference to “Portland Cement” is revised to read:

Cement 9-01

6-10.3(6) Placing Concrete Barrier

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

Precast concrete barriers Type 2, Type 4, Type F, precast single slope barrier, and transitions shall rest on a paved foundation shaped to a uniform grade and section. The foundation surface for precast concrete barriers Type 2, Type 4, Type F, precast single slope barrier, and transitions shall meet this test for uniformity: When a 10-foot straightedge is placed on the surface parallel to the centerline for the barrier, the surface shall not vary more than ¼ inch from the lower edge of the straightedge.

Section 6-11, Reinforced Concrete Walls
April 2, 2018

6-11.2 Materials

In the first paragraph, the reference to “Aggregates for Portland Cement Concrete” is revised to read:

Aggregates for Concrete 9-03.1

Section 6-12, Noise Barrier Walls
August 6, 2018

6-12.2 Materials

In the first paragraph, the reference to “Aggregates for Portland Cement Concrete” is revised to read:

Aggregates for Concrete 9-03.1

The first paragraph is supplemented with the following new material reference:
6-12.3(9) Access Doors and Concrete Landing Pads
The second paragraph is deleted and replaced with the following:

All frame and door surfaces, except stainless steel surfaces, shall be painted in accordance with Section 6-07.3(9). Primer shall be applied to all non-stainless steel surfaces. All primer coated exposed metal surfaces shall be field painted with the remaining Section 6-07.3(9)A paint system coats. The top coat, when dry, shall match the color specified in the Plans or Special Provisions.

This section is supplemented with the following:

Access door deadbolt locks shall be capable of accepting a Best CX series core. The Contractor shall furnish and install a spring-loaded construction core lock with each lock. The Engineer will furnish the permanent Best CX series core for the Contractor to install at the conclusion of the project.

6-13.AP6
Section 6-13, Structural Earth Walls
August 6, 2018

6-13.2 Materials
In the first paragraph, the reference to “Aggregates for Portland Cement Concrete” is revised to read:

Aggregates for Concrete 9-03.1

6-13.3(4) Precast Concrete Facing Panel and Concrete Block Fabrication
Item number 1 of the sixth paragraph is revised to read:

1. Vertical dimensions shall be ± ¼ inch of the Plan dimension, and the rear height shall not exceed the front height.

Item number 3 of the sixth paragraph is revised to read:

3. All other dimensions shall be ± ¼ inch of the Plan dimension.

6-14.AP6
Section 6-14, Geosynthetic Retaining Walls
April 2, 2018

6-14.2 Materials
In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement Concrete” are revised to read:

Cement 9-01
Aggregates for Concrete 9-03.1
6-15.AP6
Section 6-15, Soil Nail Walls
January 7, 2019

6-15.3(7) Shotcrete Facing
The last paragraph is supplemented with the following:

After final tightening of the nut, the threads of the soil nail shall at a minimum be flush with the end of the nut.

6-16.AP6
Section 6-16, Soldier Pile and Soldier Pile Tieback Walls
April 2, 2018

6-16.2 Materials
In the first paragraph, the reference to “Aggregates for Portland Cement Concrete” is revised to read:

Aggregates for Concrete 9-03.1

6-18.AP6
Section 6-18, Shotcrete Facing
April 1, 2019

6-18.2 Materials
The reference to metakaolin is deleted.

6-18.3(3) Testing
In the last sentence of the first paragraph, “AASHTO T 24” is revised to read “ASTM C1604”.

6-18.3(3)B Production Testing
In the last sentence, “AASHTO T 24” is revised to read “ASTM C1604”.

6-19.AP6
Section 6-19, Shafts
January 7, 2019

6-19.2 Materials
In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement Concrete” are revised to read:

Cement 9-01
Aggregates for Concrete 9-03.1

6-19.3(1)A Shaft Construction Tolerances
The last paragraph is supplemented with the following:
The elevation of the top of the reinforcing cage for drilled shafts shall be within +6 inches and -3 inches from the elevation shown in the Plans.

6-19.3(2)D Nondestructive QA Testing Organization and Personnel
Item number 4 in the first paragraph is revised to read:

4. Personnel preparing test reports shall be a Professional Engineer, licensed under Title 18 RCW, State of Washington, and shall seal the report in accordance with WAC 196-23-020.

6-19.3(3)C Conduct of Shaft Casing Installation and Removal and Shaft Excavation Operations
The first paragraph is supplemented with the following:

In no case shall shaft excavation and casing placement extend below the bottom of shaft excavation as shown in the Plans.

6-19.3(6)E Thermal Wire and Thermal Access Point (TAPS)
The third sentence of the third paragraph is revised to read:

The thermal wire shall extend from the bottom of the reinforcement cage to the top of the shaft, with a minimum of 5-feet of slack wire provided above the top of shaft.

The following new sentence is inserted after the third sentence of the third paragraph:

All thermal wires in a shaft shall be equal lengths.

6-19.3(9)D Nondestructive QA Testing Results Submittal
The last sentence of the first paragraph is revised to read:

Results shall be a Type 2E Working Drawing presented in a written report.

7-02.AP7
Section 7-02, Culverts
April 2, 2018

7-02.2 Materials
In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement Concrete” are revised to read:

Cement 9-01
Aggregates for Concrete 9-03.1

7-02.3(6)A4 Excavation and Bedding Preparation
The first sentence of the third paragraph is revised to read:

The bedding course shall be a 6-inch minimum thickness layer of culvert bedding material, defined as granular material either conforming to Section 9-03.12(3) or to AASHTO Grading No. 57 as specified in Section 9-03.1(4)C.
7-05.AP7

Section 7-05, Manholes, Inlets, Catch Basins, and Drywells
August 6, 2018

7-05.3 Construction Requirements
The fourth sentence of the third paragraph is deleted.

7-08.AP7

Section 7-08, General Pipe Installation Requirements
April 2, 2018

7-08.3(3) Backfilling
The fifth sentence of the fourth paragraph is revised to read:

All compaction shall be in accordance with the Compaction Control Test of Section 2-03.3(14)D except in the case that 100% Recycled Concrete Aggregate is used.

The following new sentences are inserted after the fifth sentence of the fourth paragraph:

When 100% Recycled Concrete Aggregate is used, the Contractor may submit a written request to use a test point evaluation for compaction acceptance. Test Point evaluation shall be performed in accordance with SOP 738.

8-01.AP8

Section 8-01, Erosion Control and Water Pollution Control
April 1, 2019

8-01.1 Description
This section is revised to read:

This Work consists of furnishing, installing, maintaining, removing and disposing of best management practices (BMPs), as defined in the Washington Administrative Code (WAC) 173-201A, to manage erosion and water quality in accordance with these Specifications and as shown in the Plans or as designated by the Engineer.

The Contracting Agency may have a National Pollution Discharge Elimination System Construction Stormwater General Permit (CSWGP) as identified in the Contract Special Provisions. The Contracting Agency may or may not transfer coverage of the CSWGP to the Contractor when a CSWGP has been obtained. The Contracting Agency may not have a CSWGP for the project but may have another water quality related permit as identified in the Contract Special Provisions or the Contracting Agency may not have water quality related permits but the project is subject to applicable laws for the Work. Section 8-01 covers all of these conditions.

This section is supplemented with the following new subsection:

8-01.1(1) Definitions
1. pH Affected Stormwater
1. Stormwater contacting green concrete (concrete that has set/stiffen but is still curing), recycled concrete, or engineered soils (as defined in the Construction Stormwater General Permit (CSWGP)) as a natural process

2. pH Monitoring

   a. pH monitoring shall be performed in accordance with the CSWGP, or Water Quality Standards (WQS in accordance with WAC 173-201A (surface) or 173-200C (ground)) when the CSWGP does not apply

   b. pH monitoring shall be performed in accordance with the CSWGP, or Water Quality Standards (WQS in accordance with WAC 173-201A (surface) or 173-200C (ground)) when the CSWGP does not apply

   c. May be neutralized and discharged to surface waters or infiltrated

2. pH Affected Non-Stormwater

   a. Conditionally authorized in accordance with CSWGP Special Condition S.1.C., uncontaminated water contacting green concrete, recycled concrete, or engineered soils (as defined in the CSWGP)

   b. Shall not be categorized as cementitious wastewater/concrete wastewater, as defined below

   c. Shall be managed and treated in accordance with the CSWGP, or WQS when the CSWGP does not apply

   d. pH adjustment and dechlorination may be necessary, as specified in the CSWGP or in accordance with WQS when the CSWGP does not apply

3. Cementitious Wastewater/Concrete Wastewater

   a. Any water that comes into contact with fine cementitious particles or slurry; any water used in the production, placement and/or clean-up of cementitious products; any water used to cut, grind, wash, or otherwise modify cementitious products

   b. When any water, including stormwater, commingles with cementitious wastewater/concrete wastewater, the resulting water is considered cementitious wastewater/concrete wastewater and shall be managed to prevent discharge to waters of the State, including ground water

   c. CSWGP Examples include: water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing)

   d. Cannot be neutralized and discharged or infiltrated

8-01.2 Materials

The first paragraph is revised to read:
Materials shall meet the requirements of the following sections:

- Corrugated Polyethylene Drain Pipe 9-05.1(6)
- Quarry Spalls and Permeable Ballast 9-13
- Erosion Control and Roadside Planting 9-14
- Construction Geotextile 9-33

The second paragraph is deleted.

8-01.3(1) General

This section is revised to read:

Adaptive management shall be employed throughout the duration of the project for the implementation of erosion and water pollution control permit requirements for the current condition of the project site. The adaptive management includes the selection and utilization of BMPs, scheduling of activities, prohibiting unacceptable practices, implementing maintenance procedures, and other managerial practices that when used singularly or in combination, prevent or reduce the release of pollutants to waters of the State. The adaptive management shall use the means and methods identified in this section and means and methods identified in the Washington State Department of Transportation’s Temporary Erosion and Sediment Control Manual or the Washington State Department of Ecology’s Stormwater Management Manuals for construction stormwater.

The Contractor shall install a high visibility fence along the lines shown in the Plans or as instructed by the Engineer.

Throughout the life of the project, the Contractor shall preserve and protect the delineated preservation area, acting immediately to repair or restore any high visibility fencing damaged or removed.

All discharges to surface waters shall comply with surface water quality standards as defined in Washington Administrative Code (WAC) Chapter 173-201A. All discharges to groundwater shall comply with groundwater quality standards WAC Chapter 173-200.

The Contractor shall comply with the CSWGP when the project is covered by the CSWGP.

Work, at a minimum, shall include the implementation of:

1. Sediment control measures prior to ground disturbing activities to ensure all discharges from construction areas receive treatment prior to discharging from the site.

2. Flow control measures to prevent erosive flows from developing.

3. Water management strategies and pollution prevention measures to prevent contamination of waters that will be discharged to surface waters or the ground.

4. Erosion control measures to stabilize erodible earth not being worked.
5. Maintenance of BMPs to ensure continued compliant performance.

6. Immediate corrective action if evidence suggests construction activity is not in compliance. Evidence includes sampling data, olfactory or visual evidence such as the presence of suspended sediment, turbidity, discoloration, or oil sheen in discharges.

To the degree possible, the Contractor shall coordinate this Work with permanent drainage and roadside restoration Work the Contract requires.

Clearing, grubbing, excavation, borrow, or fill within the Right of Way shall never expose more erodible earth than as listed below:

<table>
<thead>
<tr>
<th>Western Washington (West of the Cascade Mountain Crest)</th>
<th>Eastern Washington (East of the Cascade Mountain Crest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1 through September 30</td>
<td>April 1 through October 31</td>
</tr>
<tr>
<td></td>
<td>17 Acres</td>
</tr>
<tr>
<td>October 1 through April 30</td>
<td>November 1 through March 31</td>
</tr>
<tr>
<td></td>
<td>5 Acres</td>
</tr>
</tbody>
</table>

The Engineer may increase or decrease the limits based on project conditions.

Erodible earth is defined as any surface where soils, grindings, or other materials may be capable of being displaced and transported by rain, wind, or surface water runoff.

Erodible earth not being worked, whether at final grade or not, shall be covered within the specified time period (see the table below), using BMPs for erosion control.

<table>
<thead>
<tr>
<th>Western Washington (West of the Cascade Mountain Crest)</th>
<th>Eastern Washington (East of the Cascade Mountain Crest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1 through April 30</td>
<td>October 1 through June 30</td>
</tr>
<tr>
<td></td>
<td>2 days maximum</td>
</tr>
<tr>
<td>May 1 to September 30</td>
<td>November 1 through March 31</td>
</tr>
<tr>
<td></td>
<td>7 days maximum</td>
</tr>
<tr>
<td></td>
<td>5 days maximum</td>
</tr>
<tr>
<td></td>
<td>10 days maximum</td>
</tr>
</tbody>
</table>

When applicable, the Contractor shall be responsible for all Work required for compliance with the CSWGP including annual permit fees.

If the Engineer, under Section 1-08.6, orders the Work suspended, the Contractor shall continue to comply with this division during the suspension.

8-01.3(1)A Submittals
This section’s content is deleted.
This section is supplemented with the following new subsection:
8-01.3(1)A1 Temporary Erosion and Sediment Control Plan

Temporary Erosion and Sediment Control (TESC) Plans consist of a narrative section and plan sheets that meet the Washington State Department of Ecology’s Stormwater Pollution Prevention Plan (SWPPP) requirement in the CSWGP. For projects that do not require a CSWGP but have the potential to discharge to surface waters of the state, an abbreviated TESC plan shall be used, which may consist of a narrative and/or plan sheets and shall demonstrate compliance with applicable codes, ordinances and regulations, including the water quality standards for surface waters; Chapter 173-201A of the Washington Administrative Code (WAC) and water quality standards for groundwaters in accordance with Chapter 173-200 WAC.

The Contractor shall either adopt the TESC Plan in the Contract or develop a new TESC Plan. If the Contractor adopts the TESC Plan in scenarios in which the CSWGP is transferred to the Contractor, the Contractor shall modify the TESC Plan to match the Contractor’s schedule, method of construction, and to include all areas that will be used to directly support construction activity such as equipment staging yards, material storage areas, or borrow areas. TESC Plans shall include all high visibility fence shown in the Plans. All TESC Plans shall meet the requirements of the current edition of the WSDOT Temporary Erosion and Sediment Control Manual M 3109 and be adaptively managed throughout construction based on site inspections and required sampling to maintain compliance with the CSWGP, or WQS when no CSWGP applies. The Contractor shall develop a schedule for implementation of the TESC work and incorporate it into the Contractor’s progress schedule.

The Contractor shall submit their TESC Plan (either the adopted plan or new plan) as Type 2 Working Drawings. At the request of the Engineer, updated TESC Plans shall be submitted as Type 1 Working Drawings.

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 must be onsite or on call at all times throughout construction. The ESC Lead shall be listed on the Emergency Contact List required under Section 1-05.13(1).

The ESC Lead shall implement the TESC Plan. Implementation shall include, but is not limited to:

1. Installing, adaptively managing, and maintaining temporary erosion and sediment control BMPs to assure continued performance of their intended function. Damaged or inadequate BMPs shall be corrected immediately.
2. Updating the TESC Plan to reflect current field conditions.
3. Discharge sampling and submitting Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology in accordance with the CSWGP.
4. Develop and maintain the Site Log Book as defined in the CSWGP. When the Site Log Book or portion thereof is electronically developed, the electronic
documentation must be accessible onsite. As a part of the Site Log Book, the Contractor shall develop and maintain a tracking table to show that identified TESC compliance issues are fully resolved within 10 calendar days. The table shall include the date an issue was identified, a description of how it was resolved, and the date the issue was fully resolved.

The ESC Lead shall also inspect all areas disturbed by construction activities, all on-site erosion and sediment control BMPs, and all stormwater discharge points 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 Washington State Department of Ecology’s Erosion and Sediment Control Site Inspection Form, located at https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit, 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(1)C Water Management

This section is supplemented with the following new subsections:

8-01.3(1)C5 Water Management for In-Water Work Below Ordinary High Water Mark (OHWM)

Work over surface waters of the state (defined in WAC 173-201A-010) or below the OHWM (defined in RCW 90.58.030) shall comply with water quality standards for surface waters of the State of Washington.

8-01.3(1)C6 Environmentally Acceptable Hydraulic Fluid

All equipment containing hydraulic fluid that extends from a bridge deck over surface waters of the state or below the OHWM, shall be equipped with a biodegradable hydraulic fluid. The fluid shall achieve either a Pw1 Environmental Persistence Classification stated in ASTM D6046 (≥60% biodegradation in 28 days) or equivalent standard. Alternatively, hydraulic fluid that meets International Organization for Standardization (ISO 15380), the European Union Ecolabel, or equivalent certification will also be accepted.

The Contractor shall submit a Type 1 Working Drawing consisting of a manufacturer catalog cut of the hydraulic fluid used.

The designation of biodegradable hydraulic fluid does not mean fluid spills are acceptable. The Contractor shall respond to spills to land or water in accordance with the Contract, the associated SPCC Plan, and all applicable local, state, and federal regulations.

8-01.3(1)C7 Turbidity Curtain

All Work for the turbidity curtain shall be in accordance with the manufacturer’s recommendations for the site conditions. Removal procedures shall be developed and used to minimize silt release and disturbance of silt. The Contractor shall submit a Type 2 Working Drawing, detailing product information, installation and removal procedures, equipment and workforce needs, maintenance plans, and emergency repair/replacement plans.
Turbidity curtain materials, installation, and maintenance shall be sufficient to comply with water quality standards.

The Contractor shall notify the Engineer 10 days in advance of removing the turbidity curtain. All components of the turbidity curtain shall be removed from the project.

8-01.3(1)C1 Disposal of Dewatering Water
This section is revised to read:

When uncontaminated groundwater is encountered in an excavation on a project it may be infiltrated within vegetated areas of the right of way not designated as Sensitive Areas or incorporated into an existing stormwater conveyance system at a rate that will not cause erosion or flooding in any receiving surface water.

Alternatively, the Contractor may pursue independent disposal and treatment alternatives that do not use the stormwater conveyance system provided it is in compliance with the applicable WACs and permits.

8-01.3(1)C2 Process Wastewater
This section is revised to read:

Wastewater generated on-site as a byproduct of a construction process shall not be discharged to surface waters of the State. Some sources of process wastewater may be infiltrated in accordance with the CSWGP. Some sources of process wastewater may be disposed via independent disposal and treatment alternatives in compliance with the applicable WACs and permits.

8-01.3(1)C3 Shaft Drilling Slurry Wastewater
This section is revised to read:

Wastewater generated on-site during shaft drilling activity shall be managed and disposed of in accordance with the requirements below. No shaft drilling slurry wastewater shall be discharged to surface waters of the State. Neither the sediment nor liquid portions of the shaft drilling slurry wastewater shall be contaminated, as detectable by visible or olfactory indication (e.g., chemical sheen or smell).

1. Water-only shaft drilling slurry or water slurry with accepted flocculants may be infiltrated on-site. Flocculants used shall meet the requirements of Section 9-14.5(1) or shall be chitosan products listed as General Use Level Designation (GULD) on the Washington State Department of Ecology’s stormwater treatment technologies webpage for construction treatment. Infiltration is permitted if the following requirements are met:

   a. Wastewater shall have a pH of 6.5 – 8.5 prior to discharge.

   b. The amount of flocculant added to the slurry shall be kept to the minimum needed to adequately settle out solids. The flocculant shall be thoroughly mixed into the slurry.

   c. The slurry removed from the shaft shall be contained in a leak proof cell or tank for a minimum of 3 hours.
d. The infiltration rate shall be reduced if needed to prevent wastewater from leaving the infiltration location. The infiltration site shall be monitored regularly during infiltration activity. All wastewater discharged to the ground shall fully infiltrate and discharges shall stop before the end of each work day.

e. Drilling spoils and settled sediments remaining in the containment cell or tank shall be disposed of in accordance with Section 6-19.3(4)F.

f. Infiltration locations shall be in upland areas at least 150 feet away from surface waters, wells, on-site sewage systems, aquifer sensitive recharge areas, sole source aquifers, well head protection areas, and shall be marked on the plan sheets before the infiltration activity begins.

g. Prior to infiltration, the Contractor shall submit a Shaft Drilling Slurry Wastewater Management and Infiltration Plan as a Type 2 Working Drawing. This Plan shall be kept on-site, adapted if needed to meet the construction requirements, and updated to reflect what is being done in the field. The Working Drawing shall include, at a minimum, the following information:

   i. Plan sheet showing the proposed infiltration location and all surface waters, wells, on-site sewage systems, aquifer-sensitive recharge areas, sole source aquifers, and well-head protection areas within 150 feet.

   ii. The proposed elevation of soil surface receiving the wastewater for infiltration and the anticipated phreatic surface (i.e., saturated soil).

   iii. The source of the water used to produce the slurry.

   iv. The estimated total volume of wastewater to be infiltrated.

   v. The accepted flocculant to be used (if any).

   vi. The controls or methods used to prevent surface wastewater runoff from leaving the infiltration location.

   vii. The strategy for removing slurry wastewater from the shaft and containing the slurry wastewater once it has been removed from the shaft.

   viii. The strategy for monitoring infiltration activity and adapting methods to ensure compliance.

   ix. A contingency plan that can be implemented immediately if it becomes evident that the controls in place or methods being used are not adequate.

   x. The strategy for cleaning up the infiltration location after the infiltration activity is done. Cleanup shall include stabilizing any loose sediment on the surface within the infiltration area generated as a byproduct of
suspended solids in the infiltrated wastewater or soil disturbance associated with BMP placement and removal.

2. Shaft drilling mineral slurry, synthetic slurry, or slurry with polymer additives not allowed for infiltration shall be contained and disposed of by the Contractor at an accepted disposal facility in accordance with Section 2-03.3(7)C. Spoils that have come into contact with mineral slurry shall be disposed of in accordance with Section 6-19.3(4)F.

8-01.3(1)C4 Management of Off-Site Water
This section is revised to read:

Prior to clearing and grubbing, the Contractor shall intercept all sources of off-site surface water and overland flow that will run-on to the project. Off-site surface water run-on shall be diverted through or around the project in a way that does not introduce construction related pollution. It shall be diverted to its preconstruction discharge location in a manner that does not increase preconstruction flow rate and velocity and protects contiguous properties and waterways from erosion. The Contractor shall submit a Type 2 Working Drawing consisting of the method for performing this Work.

8-01.3(1)E Detention/Retention Pond Construction
This section is revised to read:

Permanent or temporary ponds shall be constructed before beginning other grading and excavation Work in the area that drains into that pond. Detention/retention ponds may be constructed concurrently with grading and excavation when allowed by the Engineer. Temporary conveyances shall be installed concurrently with grading in accordance with the TESC Plan so that newly graded areas drain to the pond as they are exposed.

8-01.3(2) Seeding, Fertilizing, and Mulching
This section’s title is revised to read:

8-01.3(2) Temporary Seeding and Mulching

8-01.3(2)A Preparation for Application
This section is revised to read:

A cleated roller, crawler tractor, or similar equipment, which forms longitudinal depressions at least 2 inches deep shall be used for compaction and preparation of the surface to be seeded. The entire area shall be uniformly covered with longitudinal depressions formed perpendicular to the natural flow of water on the slope. The soil shall be conditioned with sufficient water so the longitudinal depressions remain in the soil surface until completion of the seeding.

8-01.3(2)A1 Seeding
This section is deleted in its entirety.

8-01.3(2)A2 Temporary Seeding
This section is deleted in its entirety.

8-01.3(2)B Seeding and Fertilizing
This section, including title, is revised to read:
8-01.3(2)B Temporary Seeding
Temporary grass seed shall be a commercially prepared mix, made up of low growing
grass species that will grow without irrigation at the project location, and accepted by
the Engineer. The application rate shall be two pounds per 1000 square feet.

The Contractor shall notify the Engineer not less than 24 hours in advance of any
seeding operation and shall not begin the Work until areas prepared or designated for
seeding have been accepted. Following the Engineer’s acceptance, seeding of the
accepted slopes shall begin immediately.

Temporary seeding may be sown at any time allowed by the Engineer. Temporary
seeding shall be sown by one of the following methods:

1. A hydro seeder that utilizes water as the carrying agent, and maintains
continuous agitation through paddle blades. It shall have an operating capacity
sufficient to agitate, suspend, and mix into a homogeneous slurry the specified
amount of seed and water or other material. Distribution and discharge lines
shall be large enough to prevent stoppage and shall be equipped with a set of
hydraulic discharge spray nozzles that will provide a uniform distribution of the
slurry.

2. Blower equipment with an adjustable disseminating device capable of
maintaining a constant, measured rate of material discharge that will ensure an
even distribution of seed at the rates specified.

3. Power-drawn drills or seeders.

4. Areas in which the above methods are impractical may be seeded by hand
methods.

When seeding by hand, the seed shall be incorporated into the top ¼ inch of soil by
hand raking or other method that is allowed by the Engineer.

Seed applied using a hydroseeder shall have a tracer added to visibly aid uniform
application. This tracer shall not be harmful to plant, aquatic, or animal life. If Short-
Term Mulch is used as a tracer, the application rate shall not exceed 250 pounds
per acre.

Seed and fertilizer may be applied in one application provided that the fertilizer is placed
in the hydroseeder tank no more than 1 hour prior to application.

8-01.3(2)D Mulching
This section, including title, is revised to read:

8-01.3(2)D Temporary Mulching
Temporary mulch shall be straw, wood strand, or HECP mulch and shall be used for the
purpose of erosion control by protecting bare soil surface from particle displacement.
Mulch shall not be applied below the anticipated water level of ditch slopes, pond
bottoms, and stream banks. HECP mulch shall not be used within the Ordinary High
Water Mark. Non-HECP mulches applied below the anticipated water level shall be
removed or anchored down so that it cannot move or float, at no additional expense to
the Contracting Agency.

Straw or wood strand mulch shall be applied at a rate to achieve at least 95 percent
visual blockage of the soil surface.

Short Term Mulch shall be hydraulically applied at the rate of 2500 pounds per acre and
may be applied in one lift.

Moderate Term Mulch and Long Term Mulch shall be hydraulically applied at the rate of
3500 pounds per acre with no more than 2000 pounds applied in any single lift.

Mulch sprayed on signs or sign Structures shall be removed the same day.

Areas not accessible by mulching equipment shall be mulched by accepted
hand methods.

8-01.3(2)F Dates for Application of Final Seed, Fertilizer, and Mulch

This section is deleted in its entirety.

8-01.3(2)G Protection and Care of Seeded Areas

This section is deleted in its entirety.

8-01.3(2)H Inspection

This section is deleted in its entirety.

8-01.3(2)I Mowing

This section is deleted in its entirety.

8-01.3(3) Placing Biodegradable Erosion Control Blanket

This section’s title is revised to read:

8-01.3(3) Placing Erosion Control Blanket

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

Erosion Control Blankets are used as an erosion prevention device and to enhance the
establishment of vegetation.

The second paragraph is revised to read:

When used to enhance the establishment of seeded areas, seeding and fertilizing shall
be done prior to blanket installation.

8-01.3(4) Placing Compost Blanket

This section is revised to read:

Compost blankets are used for erosion control. Compost blanket shall be only be placed
on ground surfaces that are steeper than 3-foot horizontal and 1-foot vertical though
steeper slopes shall be broken by wattles or compost socks placed according to the
Standard Plans. Compost shall be placed to a depth of 3 inches over bare soil. An
organic tackifier shall be placed over the entire composted area when dry or windy
conditions are present or expected. The tackifier shall be applied immediately after the
tapplication of compost to prevent compost from leaving the composted area.

Medium compost shall be used for the compost blanket. Compost may serve the
purpose of soil amendment as specified in Section 8-02.3(6).

8-01.3(5) Plastic Covering
The first paragraph is revised to read:

Erosion Control – Plastic coverings used to temporarily cover stockpiled materials,
slopes or bare soils shall be installed and maintained in a way that prevents water from
intruding under the plastic and prevents the plastic cover from being damaged by wind.
Plastic coverings shall be placed with at least a 12-inch overlap of all seams and be a
minimum of 6 mils thick. Use soil stabilization and energy dissipation BMPs to minimize
the erosive energy flows coming off sloped areas of plastic (e.g., toe of slope). When
feasible, prevent the clean runoff from plastic from hitting bare soil. Direct flows from
plastic to stabilized outlet areas.

8-01.3(7) Stabilized Construction Entrance
The first paragraph is revised to read:

Temporary stabilized construction entrance shall be constructed in accordance with the
Standard Plans, prior to construction vehicles entering the roadway from locations that
generate sediment track out on the roadway. Material used for stabilized construction
entrance shall be free of extraneous materials that may cause or contribute to track out.

8-01.3(8) Street Cleaning
This section is revised to read:

Self-propelled pickup street sweepers shall be used to remove and collect dirt and other
debris from the Roadway. The street sweeper shall effectively collect these materials
and prevent them from being washed or blown off the Roadway or into waters of the
State. Street sweepers shall not generate fugitive dust and shall be designed and
operated in compliance with applicable air quality standards. Material collected by the
street sweeper shall be disposed of in accordance with Section 2-03.3(7)C.

When allowed by the Engineer, power broom sweepers may be used in non-sensitive
areas. The broom sweeper shall sweep dirt and other debris from the roadway into the
work area. The swept material shall be prevented from entering or washing into waters
of the State.

Street washing with water will require the concurrence of the Engineer.

8-01.3(12) Compost Socks
The first two sentences of the first paragraph are revised to read:

Compost socks are used to disperse flow and sediment. Compost socks shall be
installed as soon as construction will allow but before flow conditions create erosive
flows or discharges from the site. Compost socks shall be installed prior to any mulching
or compost placement.
8-01.3(13) Temporary Curb
The last two sentences of the second paragraph are revised to read:

Temporary curbs shall be a minimum of 4 inches in height. Temporary curb shall be
installed so that ponding does not occur in the adjacent roadway.

8-01.3(14) Temporary Pipe Slope Drain
The third and fourth paragraphs are revised to read:

The pipe fittings shall be water tight and the pipe secured to the slope with metal posts,
wood stakes, or sand bags.

The water shall be discharged to a stabilized conveyance, sediment trap, stormwater
pond, rock splash pad, or vegetated strip, in a manner to prevent erosion and maintain
water quality compliance.

The last paragraph is deleted.

8-01.3(15) Maintenance
This section is revised to read:

Erosion and sediment control BMPs shall be maintained or adaptively managed as
required by the CSWGP until the Engineer determines they are no longer needed.
When deficiencies in functional performance are identified, the deficiencies shall be
rectified immediately.

The BMPs shall be inspected on the schedule outlined in Section 8-01.3(1)B for
damage and sediment deposits. Damage to or undercutting of BMPs shall be repaired
immediately.

In areas where the Contractor’s activities have compromised the erosion control
functions of the existing grasses, the Contractor shall overseed at no additional cost to
the Contracting Agency.

The quarry spalls of construction entrances shall be refreshed, replaced, or screened to
maintain voids between the spalls for collecting mud and dirt.

Unless otherwise specified, when the depth of accumulated sediment and
debris reaches approximately ⅓ the height of the BMP the deposits shall be removed.
Debris or contaminated sediment shall be disposed of in accordance with Section 2-
03.3(7)C. Clean sediments may be stabilized on-site using BMPs as allowed by the
Engineer.

8-01.3(16) Removal
This section is revised to read:

The Contractor shall remove all temporary BMPs, all associated hardware and
associated accumulated sediment deposition from the project limits prior to Physical
Completion unless otherwise allowed by the Engineer. When the temporary BMP
materials are made of natural plant fibers unaltered by synthetic materials the Engineer
may allow leaving the BMP in place.
The Contractor shall remove BMPs and associated hardware in a way that minimizes soil disturbance. The Contractor shall permanently stabilize all bare and disturbed soil after removal of BMPs. If the installation and use of the erosion control BMPs have compacted or otherwise rendered the soil inhospitable to plant growth, such as construction entrances, the Contractor shall take measures to rehabilitate the soil to facilitate plant growth. This may include, but is not limited to, ripping the soil, incorporating soil amendments, or seeding with the specified seed.

At the request of the Contractor and at the sole discretion of the Engineer the CSWGP may be transferred back to the Contracting Agency. Approval of the Transfer of Coverage request will require the following:

1. All other Work required for Contract Completion has been completed.

2. All Work required for compliance with the CSWGP has been completed to the maximum extent possible. This includes removal of BMPs that are no longer needed and the site has undergone all Stabilization identified for meeting the requirements of Final Stabilization in the CSWGP.

3. An Equitable Adjustment change order for the cost of Work that has not been completed by the Contractor.


If the Engineer approves the transfer of coverage back to the Contracting Agency, the requirement in Section 1-07.5(3) for the Contractor’s submittal of the Notice of Termination form to the Washington State Department of Ecology will not apply.

8-01.4 Measurement

This section’s content is deleted and replaced with the following new subsections:

8-01.4(1) Lump Sum Bid for Project (No Unit Items)
When the Bid Proposal contains the item “Erosion Control and Water Pollution Prevention” there will be no measurement of unit or force account items for Work defined in Section 8-01 except as described in Sections 8-01.4(3) and 8-01.4(4). Also, except as described in Section 8-01.4(3), all of Sections 8-01.4(2) and 8-01.5(2) are deleted.

8-01.4(2) Item Bids
When the Proposal does not contain the items “Erosion Control and Water Pollution Prevention”, Section 8-01.4(1) and 8-01.5(1) are deleted and the Bid Proposal will contain some or all of the following items measured as noted.

ESC lead will be measured per day for each day that an inspection is made and a report is filed.

Erosion control blanket and plastic covering will be measured by the square yard along the ground slope line of surface area covered and accepted.

Turbidity curtains will be measured by the linear foot along the ground line of the installed curtain.
Check dams will be measured per linear foot one time only along the ground line of the completed check dam. No additional measurement will be made for check dams that are required to be rehabilitated or replaced due to wear.

Stabilized construction entrances will be measured by the square yard by ground slope measurement for each entrance constructed.

Tire wash facilities will be measured per each for each tire wash installed.

Street cleaning will be measured by the hour for the actual time spent cleaning pavement, refilling with water, dumping and transport to and from cleaning locations within the project limits, as authorized by the Engineer. Time to mobilize the equipment to or from the project limits on which street cleaning is required will not be measured.

Inlet protections will be measured per each for each initial installation at a drainage structure.

Silt fence, gravel filter, compost berms, and wood chip berms will be measured by the linear foot along the ground line of the completed barrier.

Wattles and compost socks will be measured by the linear foot.

Temporary curbs will be measured by the linear foot along the ground line of the completed installation.

Temporary pipe slope drains will be measured by the linear foot along the flow line of the pipe.

Coir logs will be measured by the linear foot along the ground line of the completed installation.

Outlet protections will be measured per each initial installation at an outlet location.

Temporary seeding, temporary mulching, and tackifiers will be measured by the acre by ground slope measurement.

Compost blanket will be measured by the square yard by ground slope surface area covered and accepted.

8-01.4(3) Reinstating Unit Items with Lump Sum Erosion Control and Water Pollution Prevention
The Contract Provisions may establish the project as lump sum, in accordance with Section 8-01.4(1) and also include one or more of the items included above in Section 8-01.4(2). When that occurs, the corresponding measurement provision in Section 8-01.4(2) is not deleted and the Work under that item will be measured as specified.

8-01.4(4) Items not included with Lump Sum Erosion Control and Water Pollution Prevention
Compost blanket will be measured by the square yard by ground slope surface area covered and accepted.
Temporary mulch will be measured by the acre by ground slope surface area covered and accepted.

High visibility fence will be measured by the linear foot along the ground line of the completed fence.

8-01.5 Payment
This section’s content is deleted and replaced with the following new subsections:

8-01.5(1) Lump Sum Bid for Project (No Unit Items)
Payment will be made for the following Bid item when it is included in the Proposal:

“Erosion Control and Water Pollution Prevention”, lump sum.

The lump sum Contract price for “Erosion Control and Water Pollution Prevention” shall be full pay to perform the Work as described in Section 8-01 except for costs compensated by Bid Proposal items inserted through Contract Provisions as described in Section 8-01.4(2). Progress payments for the lump sum item “Erosion Control and Water Pollution Prevention” will be made as follows:

1. The Contracting Agency will pay 15 percent of the bid amount for the initial set up for the item. Initial set up includes the following:
   a. Acceptance of the TESC Plan provided by the Contracting Agency or submittal of a new TESC Plan,
   b. Submittal of a schedule for the installation of the BMPs, and
   c. Identifying water quality sampling locations.

2. 70 percent of the bid amount will be paid in accordance with Section 1-09.9.

3. Once the project is physically complete and copies of the all reports submitted to the Washington State Department of Ecology have been submitted to the Engineer, and, if applicable, transference of the CSWGP back to the Contracting Agency is complete, the remaining 15 percent of the bid amount shall be paid in accordance with Section 1-09.9.

8-01.5(2) Item Bids
“ESC Lead”, per day.

“Turbidity Curtain”, per linear foot.

“Erosion Control Blanket”, per square yard.

“Plastic Covering”, per square yard.

“Check Dam”, per linear foot.

“Inlet Protection”, per each.
“Gravel Filter Berm”, per linear foot.

“Stabilized Construction Entrance”, per square yard.

“Street Cleaning”, per hour.

“Silt Fence”, per linear foot.

“Wood Chip Berm”, per linear foot.

“Compost Berm”, per linear foot.

“Wattle”, per linear foot.

“Compost Sock”, per linear foot.

“Coir Log”, per linear foot.

“Temporary Curb”, per linear foot.

“Temporary Pipe Slope Drain”, per linear foot.

“Temporary Seeding”, per acre.

“Temporary Mulching”, per acre.

“Compost Blanket”, per square yard.

“Outlet Protection”, per each.

“Tackifier”, per acre.

“Erosion/Water Pollution Control”, by force account as provided in Section 1-09.6.

Maintenance and removal of erosion and water pollution control devices including removal and disposal of sediment, stabilization and rehabilitation of soil disturbed by these activities, and any additional Work deemed necessary by the Engineer to control erosion and water pollution will be paid by force account in accordance with Section 1-09.6.

To provide a common Proposal for all Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the Contractor’s total Bid.

**8-01.5(3) Reinstating Unit Items with Lump Sum Erosion Control and Water Pollution Prevention**

The Contract may establish the project as lump sum, in accordance with Section 8-01.4(1) and also reinstate the measurement of one or more of the items described in Section 8-01.4(2), except for Erosion/Water Pollution Control, by force account. When that occurs, the corresponding payment provision in Section 8-01.5(2) is not deleted and the Work under that item will be paid as specified.
8-01.5(4) Items not included with Lump Sum Erosion Control and Water Pollution Prevention
Payment will be made for the following Bid item when it is included in the Proposal:

“High Visibility Fence”, per linear foot.

8-02.AP8
Section 8-02, Roadside Restoration
April 1, 2019

This section, including all subsections, is revised to read:

8-02.1 Description
This Work consists of preserving, maintaining, establishing and augmenting vegetation on the roadsides and within mitigation or sundry site areas. It includes vegetation preservation, weed and pest control, furnishing and placing topsoil, compost, and soil amendments, and furnishing and planting seed, sod and plants of all forms and container types. It includes performing plant establishment activities and soil bioengineering. Work shall be performed in accordance with these Specifications and as shown in the Plans or as designated by the Engineer.

Trees, whips, shrubs, ground covers, cuttings, live stakes, live poles, live branches, rhizomes, tubers, rootstock, and seedlings will hereinafter be referred to collectively as “plants” or “plant material”. Grass, wildflowers, and other plant materials installed in seed form will hereinafter be referred to collectively as “seed”.

8-02.2 Materials
Materials shall meet the requirements of the following sections:

| Erosion Control and Roadside Planting | 9-14 |
| Water                                | 9-25.2 |

Botanical identification and nomenclature of plant materials shall be based on descriptions by Hitchcock and Cronquist in “Flora of the Pacific Northwest”. Botanical identification and nomenclature of plant material not found in “Flora” shall be based on Bailey in “Hortus Third” or superseding editions and amendments or as referenced in the Plans.

8-02.3 Construction Requirements
8-02.3(1) Responsibility During Construction
The Contractor shall prepare, install, and ensure adequate and proper care of all roadside seeded, planted, and lawn areas on the project until all plant establishment periods required by the Contract are complete or until Physical Completion of the project, whichever is last.

Adequate and proper care shall include, but is not limited to, keeping all plant material in a healthy, growing condition by watering, pruning, and other actions deemed necessary for plant health. This Work shall include keeping the project area free from insect infestation, weeds or unwanted vegetation, litter, and other debris along with retaining the finished grades and mulch in a neat uniform condition.
Existing desirable vegetation shall be saved and protected unless removal is required by the Contract or allowed by the Engineer.

The Contractor shall have sole responsibility for the maintenance and appearance of the roadside restoration.

8-02.3(2) Work Plans

Three Work Plan submittals exist under this Section:

1. Roadside Work Plan: This plan is required when Work will disturb the roadside beyond 20 feet from the pavement or where trees or native vegetation will be removed, the Contractor shall submit a Type 2 Working Drawing.

2. Weed and Pest Control Plan: This plan is required when the proposal contains the item "Weed and Pest Control," and prior to application of any chemicals or weed control activities, the Contractor shall submit a Type 2 Working Drawing.

3. Plant Establishment Plan: This plan is required when the proposal contains the item "PSIPE__", and prior to completion of Initial Planting, the Contractor shall submit a Type 2 Working Drawing.

8-02.3(2)A Roadside Work Plan

The Roadside Work Plan shall define the expected impacts to the roadside and restoration resulting from Work necessary to meet all Contract requirements. The Contractor shall define how the roadside restoration Work included in the Contract will be phased and coordinated with project Work such as earthwork, staging, access, erosion and water pollution control, irrigation, etc. The Roadside Work Plan shall include the following:

1. Limiting impacts to roadsides:
   a. Limits of Work including locations of staging or parking.
   b. Means and methods for vegetation protection (in accordance with Section 1-07.16(2)).
   c. Locations outside of clearing limits where vegetation shall be removed to provide access routes or other needs to accomplish the Work.
   d. Plans for removal, preservation and stockpile of topsoil or other native materials, if outside of clearing and grubbing limits and within the project limits.

2. Roadside Restoration:
   a. Plan for propagation and procurement of plants, ground preparation for planting, and installation of plants.
b. Means and methods to limit soil compaction where seeding and planting are to occur, such as steel plates, hog fuel access roads, wood mats for sensitive areas (including removal) and decompaction for unavoidable impacts.

c. Plan and timing to incorporate or remove erosion control items.

3. **Lawn Installation:**

a. Schedule for lawn installation work.

b. Establishment and maintenance of lawns.

**8-02.3(2)B  Weed and Pest Control Plan**

The Weed and Pest Control Plan shall describe all weed and pest control needs for the project.

The plan shall be prepared and signed by a licensed Commercial Pest Control Operator or Consultant. The plan for control of weeds and pests on the Contract in accordance with Section 8-02.3(3) shall include the following:

1. Names of plan preparer and pesticide operators, including contact information. The Contractor shall furnish the Engineer evidence that all operators are licensed with appropriate endorsements, and that the pesticide used is registered for use by the Washington State Department of Agriculture.

2. Means and methods of weed control, including mechanical and/or chemical.

3. Schedule for weed control including re-entry times for pesticide application by pesticide type.

4. Proposed pesticide use in accordance with Section 8-02.3(3)A: name, application rate, and Safety Data Sheets of all proposed pesticides. Include a copy of the current product label for each pesticide to be used.

5. Plan to ensure worker safety until pesticide re-entry periods are met.

**8-02.3(2)C  Plant Establishment Plan**

The Plant Establishment Plan shall describe activities necessary to ensure continued health and vigor of planted and seeded areas in accordance with the requirements of Sections 8-02.3(12) and 8-02.3(13). Should the plan become unworkable at any time during the first-year plant establishment, the Contractor shall submit a revised plan prior to proceeding with further Work. The Plant Establishment Plan shall include:

1. Proposed scheduling of joint inspection meetings, activities, materials, equipment to be utilized for the first-year plant establishment.
2. Proposed adaptive management activities to ensure successful establishment of seeded, sodded, and planted areas.

3. A contact person.

4. Management of the irrigation system, when applicable.

8-02.3(3) Weed and Pest Control
The Contractor shall control weed and pest species within the project limits using integrated pest management principles consisting of mechanical, biological, and chemical controls that are outlined in the Weed and Pest Control Plan or as designated by the Engineer. Controlling weeds consists of killing and removing weeds by chemical, mechanical, and hand methods.

8-02.3(3)A Chemical Pesticides
Chemical pesticides include, but are not restricted to, any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, including but not limited to, insecticides, herbicides, fungicides, adjuvants, and additives, including plant regulators, defoliants and desiccants. The Contractor shall apply chemical pesticides in accordance with the label recommendations, the Washington State Department of Ecology, local sensitive area ordinances, and Washington State Department of Agriculture laws and regulations. Only those pesticides listed in the table Herbicides Approved for Use on WSDOT Rights of Way and accepted as part of the Weed and Pest Control Plan or by written authorization from the Engineer may be used (www.wsdot.wa.gov/maintenance/roadside/herbicide_use.htm).

The applicator shall be licensed by the State of Washington as a Commercial Applicator or Commercial Operator, with additional endorsements as required by the Special Provisions or the proposed weed control plan. All chemical pesticides shall be delivered to the job site in the original containers, or if pre-mixed off-site, a certification of the components and formulation from the supplier is required. The licensed applicator or operator shall complete WSDOT Form 540-509, Commercial Pesticide Application Record, each day the pesticide is applied and furnish a copy to the Engineer by the following business day.

The Contractor shall ensure confinement of the chemicals within the designated areas. The use of spray chemical pesticides shall require the use of anti-drift and activating agents and a spray pattern indicator unless otherwise allowed by the Engineer.

The Contractor shall assume all responsibility for rendering any area unsatisfactory for planting by reason of chemical application. Damage to adjacent areas, either on or off the Highway Right of Way, shall be repaired to the satisfaction of the Engineer or the property owner at no additional cost to the Contracting Agency.

8-02.3(3)B Planting and Lawn Area Weed Control
Planting and lawn area weed control consists of controlling weeds and pests in planted and lawn areas shown in the Plans. This Work is included in the bid items for planting and lawn installation.
All planting and lawn areas shall be prepared so that they are weed and debris free at the time of planting and until completion of the project. The planting areas shall include the entire ground surface, regardless of cover, areas around plants, and those areas shown in the Plans.

Within planting or lawn areas, all species that are not shown in the Plans are unwanted and shall be controlled unless specifically allowed by the Engineer to remain.

Grass growing within the mulch ring of a plant, including grass applied in accordance with Sections 8-01.3(2)A1, 8-02.3(9) or 8-02.3(10), shall be considered a weed and shall be controlled on the project in accordance with the weed and pest control plan.

All applications of post-emergent herbicides shall be made while green and growing tissue is present. Residual herbicides shall not be used where rhizomatous species or perennial species are indicated.

Should unwanted vegetation reach the flowering and seed stage in violation of these Specifications, the Contractor shall physically remove and bag the seed heads prior to seed dispersion. All physically removed vegetation and seed heads shall be disposed of off-site at no cost to the Contracting Agency.

8-02.3(3)C  Project Area Weed and Pest Control
The Contractor shall control weeds not otherwise covered in accordance with Section 8-02.3(3)B, in all areas within the project limits, including erosion control seeding areas and vegetation preservation areas, as designated by the Engineer.

When the Bid Item "Project Area Weed and Pest Control" is included in the Contract, the Contractor shall also control all weeds specified as noxious by the Washington State Department of Agriculture, the local Weed District, or the County Noxious Weed Control Board outside of planting areas within the project limits.

8-02.3(4)  Topsoil
Topsoil shall not be worked or placed when the ground or topsoil is frozen, or excessively wet.

The Contractor shall protect topsoil stockpiled for project use to prevent erosion and weed growth. Weed growth on topsoil stockpile sites shall be immediately eliminated in accordance with the accepted Weed and Pest Control Plan and Section 8-02.3(3)C.

The subsoil where topsoil is to be placed shall be tilled to a depth of 1 foot or as specified in the Special Provisions or the Plans. Topsoil of the type specified shall be evenly spread over the specified areas to the depth shown in the Plans or as otherwise ordered by the Engineer. Topsoil depths greater than 6 inches shall be placed in lifts no more than 6 inches in depth. The first lift of topsoil shall be incorporated with sub-soil to a depth of 8 inches and subsequent lifts placed and lightly tamped between lifts. After the topsoil has been spread, all large clods, hard
lumps, and rocks 2 inches in diameter and larger, and litter shall be raked up, removed, and disposed.

8-02.3(4)A Topsoil Type A
Topsoil Type A shall be as specified in the Special Provisions. The Contractor shall submit a certification by the supplier that the contents of the Topsoil meet the requirements in the Special Provisions.

8-02.3(4)B Topsoil Type B
Topsoil Type B shall be naturally occurring topsoil taken from within the project limits and shall meet the requirements of Section 9-14.1(2). Topsoil Type B shall be taken from areas shown in the Plans to the designated depth and stockpiled at locations that will not interfere with the construction of the project, and outside of sensitive areas, as allowed by the Engineer. A minimum of two weeks prior to excavation of Topsoil Type B, the Contractor shall pre-treat the vegetation on the designated Topsoil Type B areas according to the Weed and Pest Control Plan. Areas beyond the slope stakes shall be disturbed as little as possible in the above operations and under no circumstances shall Topsoil Type B be stockpiled within 10 feet of any existing tree or vegetation area designated to be saved and protected. The Contractor shall protect topsoil stockpile from weed infestation.

The Contractor shall set aside sufficient material to satisfy the needs of the project.

Upon completion of topsoil placement, the Contractor shall dispose of remaining stockpiled Topsoil Type B not required for use on the project at no additional expense to the Contracting Agency in accordance with Section 2-03.3(7)C.

Should a shortage of Topsoil Type B occur, and the Contractor has wasted or otherwise disposed of topsoil material, the Contractor shall furnish Topsoil Type A or C at no additional expense to the Contracting Agency.

8-02.3(4)C Topsoil Type C
Topsoil Type C shall be naturally occurring topsoil obtained from a source provided by the Contractor outside of the Contracting Agency-owned Right of Way. Topsoil Type C shall meet the requirements of Sections 8-02.3(4)B and 9-14.1(3). The Contractor shall not begin removal of Topsoil Type C from the proposed source until the material has been allowed for use by the Engineer.

8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation
This Work includes preparing worked areas for the installation of all types of permanent erosion control planting. Work shall be conducted so the flow lines in drainage channels are maintained. Material displaced by the Contractor’s operations that interferes with drainage shall be removed from the channel and disposed of as allowed by the Engineer.

8-02.3(5)A Seeding Area Preparation
The Contractor shall prepare roadside seeding areas as follows:
1. Remove all excess material, debris, stumps, and rocks greater than 3 inches in diameter from areas to be seeded. Dispose of removed materials offsite.

2. Prepare roadside seeding area to a weed free and bare condition.

3. Bring area to uniform grade and install topsoil, soil amendments, or compost as specified. Any slopes 3(H) to 1(V) or steeper shall not be tilled unless otherwise specified.

4. Compact to provide a reasonably firm but friable seedbed; tractor walk to uniformly cover the surface with longitudinal depressions at least 2 inches deep formed perpendicular to the natural flow of water on the slope. Condition the soil with sufficient water so the longitudinal depressions remain in the soil surface until completion of the seeding.

5. Seed and mulch within 2 days of preparation.

8-02.3(5)B Lawn Area Preparation
The Contractor shall prepare lawn areas as follows:

1. Prepare lawn area to a weed free and bare condition in accordance with Section 8-02.3(3)B.

2. Remove excess material, stumps, wood or rocks over 3 inches in diameter and remove from site.

3. Bring area to uniform grade and install topsoil or soil amendments in accordance with Section 8-02.3(4) and 8-02.3(6).

4. Till to an 8-inch depth, rake to a smooth even grade without low areas that trap water, and compact with a 50-pound roller. The finished grade of the soil shall be 1 inch below the top of all curbs, junction and valve boxes, walks, driveways, and other Structures.

5. Seed or sod the area within two days of preparation.

8-02.3(5)C Planting Area Preparation
The Contractor shall prepare planting areas as follows:

1. Prepare planting area to a weed free and bare condition in accordance with Section 8-02.3(3)B.

2. Decompact soil to a depth of 18 inches where construction activities have taken place or where native soils are compacted.

3. Return soil to uniform grade even with surrounding areas, leaving no holes or mounds over 3 inches in depth or height.

4. Remove excess material, stumps, wood or rocks over 3 inches in diameter and remove from site.
5. Apply compost or other amendments as indicated in the plans and in accordance with Section 8-02.3(6).

6. Cultivate amendments to a depth of 12 inches to provide a reasonably firm but friable planting area. Do not till any slopes 3(H) to 1(V) or steeper.

7. Return soil to a uniform finished grade, 1 inch, or the specified depth of mulch plus 1 inch, below walks, curbs, junction and valve boxes, catch basins, and driveways, unless otherwise specified.

8. Begin planting and mulching the area within two days of final preparation.

8-02.3(6) Soil Amendments
The Contractor shall place soil amendments of the type, quality, and quantities specified where shown in the Plans or as specified in the Special Provisions. Areas receiving soil amendments shall be bare soil or vegetation free prior to application. All soil amendments shall be installed as shown in the Plans within 30 calendar days after delivery to the project site.

8-02.3(6)A Compost
Compost used for soil amendments shall be Fine Compost unless otherwise designated in the Plans. When compost blanket is used for temporary erosion control, the compost blanket may be incorporated into the soil immediately prior to planting when used as compost soil amendment. The area shall be prepared in accordance with Section 8-02.3(5) prior to placing compost.

8-02.3(6)B Fertilizers
The Contractor shall apply fertilizer in the form, mixture, and rate specified in the Special Provisions or as directed by the Engineer. Application procedures shall be in accordance with the manufacturer’s recommendations unless otherwise specified in the Special Provisions.

The Contractor shall submit a guaranteed fertilizer analysis label for the selected product a minimum of one week prior to application for acceptance. Following the Engineer’s acceptance, fertilizing of the accepted ground or vegetated surfaces shall begin immediately.

In seeding and lawn areas to be fertilized, the fertilizer shall be applied concurrently with the seed. When fertilizer is hydraulically applied, the fertilizer shall be suitable for application with seeding as specified in Section 8-02.3(9)C. If hydroseeding, the fertilizer shall be placed in the hydroseeder tank no more than 1 hour prior to application.

Fertilizers for planting areas shall be applied concurrently with compost and applied prior to incorporation, unless tablet form fertilizer is specified. Where tablet form fertilizer is specified, fertilizer shall be applied concurrently with plant installation.

Fertilizer sprayed on signs or sign structures shall be removed the same day.
Areas not accessible by fertilizing equipment shall be fertilized by allowed hand methods.

Second Application: A second application of fertilizer shall be applied as specified in the Special Provisions at the locations designated in the Plans. The fertilizer shall be applied during the months of March, April, or May of the following year after the initial seeding, planting, or lawn installation. The fertilizer shall be dry granular pellets or pearls and applied in accordance with the manufacturer’s recommendations or as specified in the Special Provisions.

8-02.3(7) Layout of Planting, Lawn and Seeding Areas

The Contractor shall lay out and prepare planting and lawn areas and receive the Engineer’s acceptance of layout and preparation prior to any installation activities. The Contractor shall stake the location of all trees larger than 1-inch caliper and the perimeter of all planting areas for acceptance by the Engineer prior to any installation activities.

The Contractor shall locate all trees to be planted in mowable grass areas a minimum of 10 feet from the edge of planting areas, other trees, fence lines, and bottom of ditches unless otherwise specified.

Tree locations shown in the Plans shall be considered approximate unless shown with stationing and offset distance. In irrigated areas, trees shall be located so their trunk is a minimum of ⅓ of the spray radius away from the nearest sprinkler head.

Unless otherwise shown, planting areas located adjacent to Roadways shall begin 6 feet from the edge of shoulder on roadway fills and begin 5 feet up on the back slope from the bottom on roadway cut sections. Plants within planting areas shall be located such that mature branching pattern will not block sight distance, signs, or other traffic-related devices. No trees shall be placed where the mature canopy will grow to within 10 feet of existing power lines. Where roadside ditches are present, planting areas shall begin 5 feet from the centerline of the ditch unless shown otherwise in the Plans.

8-02.3(8) Planting

8-02.3(8)A Dates and Conditions for Planting

No plant material shall be planted until it has been inspected and accepted for planting by the Engineer. Rejected material shall be removed from the project site immediately. All plants for the project or a sufficient quantity to plant 1-acre of the site, whichever is less, shall be received on site prior to the Engineer beginning inspection of the plants.

Under no circumstances will planting be permitted during unsuitable soil or weather conditions as determined by the Engineer. Unsuitable conditions may include frozen soil, freezing weather, saturated soil, standing water, high winds, heavy rains, and high water levels. The ground shall be moist at the time of planting. All planting shall be accomplished during the following periods:

1. Non-Irrigated Plant Material
2. Irrigated Plant Material

In irrigated areas, plant material shall not be installed until the irrigation system is fully operational and accepted by the Engineer. Trees and shrubs may be planted in irrigated areas during the non-irrigated planting window before the irrigation system is functional with the written concurrence of the Engineer only if the irrigation system is guaranteed to be operational prior to the end of the non-irrigated planting window.

8-02.3(8)B Plant Installation

The Contractor shall handle plant material in the following manner:

1. Root systems shall be kept covered and damp at all times. Plant material shall be kept in containers until the time of planting.

2. Roots shall not be bunched, curled, twisted, or unreasonably bent when placed in the planting hole. Bare root plant material shall be dormant at the time of harvesting and planting. The root systems of all bare root plant material shall be dipped in a slurry immediately prior to planting.

3. Plant material supplied in wrapped balls shall not be removed from the wrapping until the time of planting at the planting location. The root system of balled plant material shall be moist at the time of planting. Root balls shall be loosened prior to planting. All burlap, baskets, string, wire and other such materials shall be removed from the hole when planting balled plants.

4. Plant cutting material shall be dormant at the time of cutting and planting. All cuttings shall be installed immediately if buds begin to swell.

5. Plants shall be placed with the crown at the finished grade. In their final position, plants shall have their top true root (not adventitious root) no more than 1 inch below the soil surface, no matter where that root was located in the original root ball or container. The backfill material, including container and root ball soil, shall be thoroughly watered on the same day that planting occurs regardless of season.

When installing plants, the Contractor shall dig planting holes three times the diameter of the container or root ball size. Any glazed surface of the planting hole shall be roughened prior to planting.

8-02.3(8)C Pruning, Staking, Guying, and Wrapping

Plants shall be pruned at the time of planting, only to remove minor broken or damaged twigs, branches or roots. Pruning shall be performed 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 1 year and when plants are dormant.

Trees shall only be staked when so noted in the Plans. Each tree shall be staked or guyed before completion of the backfilling in accordance with the details shown in the Plans.

Trees shall be wrapped when so noted in the Plans.

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

For all seed, the Contractor shall furnish the following documentation to the Engineer:

1. The state or provincial seed dealer license and endorsements.

2. Copies of Washington State Department of Agriculture (WSDA) test results on each lot of seed. Test results shall be within six months prior to the date of application.

8-02.3(9)A Dates for Application of Seed

Unless otherwise allowed by the Engineer, the Contractor shall apply seed for permanent erosion control during the following periods:

<table>
<thead>
<tr>
<th>Western Washington¹</th>
<th>Eastern Washington</th>
</tr>
</thead>
<tbody>
<tr>
<td>(West of the Cascade Mountain Crest)</td>
<td>(East of the Cascade Mountain Crest)</td>
</tr>
<tr>
<td>March 1 through May 15</td>
<td>October 1 through November 15</td>
</tr>
<tr>
<td>September 1 through October 1</td>
<td></td>
</tr>
</tbody>
</table>

¹Seeding may be allowed outside these dates when allowed by the Engineer.

All roadway excavation and embankment ground surfaces that are completed to final grades shall be prepared and seeded during the first available seeding window. When environmental conditions are not conducive to satisfactory results, the Engineer may suspend the seeding Work until such time that the desired results are likely to be obtained. If seeding is suspended, temporary erosion control methods according to Section 8-01 shall be used to protect the bare soil until seeding conditions improve.

8-02.3(9)B Seeding and Fertilizing

The Contractor shall prepare the seeding area in accordance with Section 8-02.3(5)A and apply seed at the rate and mix specified in the Special Provisions. The Contractor shall notify the Engineer within 5 days in advance of any seeding operation and shall not begin the Work until areas prepared or designated for seeding have been accepted. Following the Engineer’s acceptance, seeding of the accepted ground surfaces shall begin immediately.

Seeding shall not be done during windy weather or when the ground is frozen, or excessively wet.
When seeding by hand, the seed shall be incorporated into the top ¼ inch of soil by hand raking or other method that is allowed by the Engineer.

Seed applied as a separate operation using a hydroteeder shall have a tracer added to visibly aid uniform application. The tracer shall be HECP Short-Term Mulch applied at a rate of 200 to 250 pounds per acre and the tracer shall carry the measured specified seeding rate.

8-02.3(9)C Seeding with Fertilizers and Mulches
When the Proposal includes any variation of seeding, fertilizing, and without mulching, the seed and fertilizer shall be applied in one application followed by mulching. West of the Cascade Mountains, seed, fertilizer, and mulch may be completely applied in one application. East of the Cascades, seeding, fertilizing, and mulching shall not be applied as a single application unless allowed by the Engineer in writing prior to application. The fertilizing and mulching shall meet the requirements of Sections 8-02.3(6) and 8-02.3(11).

8-02.3(9)D Inspection
Seeded areas will be inspected upon completion of seeding, fertilizing, and mulching. The Work in any area will not be measured for payment until a uniform distribution of the materials is accomplished at the specified rate. Areas that have not received a uniform application of seed, fertilizer, and mulch at the specified rate, as determined by the Engineer, shall be re-seeded, re-fertilized, or re-mulched prior to payment for seeding within a designated area.

8-02.3(9)E Protection and Care of Seeded Areas
The Contractor shall install and establish a stable and weed free stand of grass as specified within all designated permanent seeding areas. A stable stand of grass shall meet the following requirements:

1. A dense and uniform canopy cover, 70% for Western Washington and 50% for Eastern Washington, of specified species covers all seeded areas after 3 months of active growth following germination during the growing season. Canopy cover is defined as the cover of living and vigorous grass blades, leaves, and shoots of specified species. Volunteer species, weeds, woody plants, or other undesirable vegetation shall not factor into the canopy cover. Growth and establishment may require supplemental irrigation to meet cover requirements.

2. Stand health is evident by vigorously growing planted species having a uniform rich-green appearance and with no dead patches or major gaps of growth. A stand of grass that displays rusting, wilting, stunted growth, disease, yellowing or browning of leaves, or bare patches does not meet the stand health requirement.

3. The Contractor shall establish a stable stand of grass free of all weeds, non-specified grasses, and other undesirable vegetation. Weed control shall be in accordance with the Weed and Pest Control Plan and occur on a monthly basis during the establishment period and through the life of the Contract.
4. Remove all trash, rocks, construction debris, and other obstructions that may be detrimental to the continued establishment of future seeding.

In addition to the requirements of Section 1-07.13(1), restoration of eroded areas including clean up, removal, and proper disposal of eroded material, filling and raking of eroded areas with Topsoil Type A or fine compost, and re-application of the specified seed, fertilizer, and mulch shall occur at no additional cost to the Contracting Agency.

8-02.3(10) Lawn Installation

8-02.3(10)A Dates and Conditions for Lawn Installation

In irrigated areas, lawn installation shall not begin until the irrigation system is fully operational.

Unless otherwise allowed by the Engineer, seeded lawn installation shall be performed during the following time periods at the location shown:

<table>
<thead>
<tr>
<th>Western Washington (West of the Cascade Mountain Crest)</th>
<th>Eastern Washington (East of the Cascade Mountain Crest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1 through May 15</td>
<td>October 1 through November 15</td>
</tr>
<tr>
<td>September 1 through October 1</td>
<td></td>
</tr>
<tr>
<td>When irrigation system is operational March 1 through October 1</td>
<td>When irrigation system is operational March 1 through November 1</td>
</tr>
</tbody>
</table>

8-02.3(10)B Lawn Seeding and Sodding

The Contractor shall prepare the lawn area in accordance with Section 8-02.3(5) and apply seed at the mix and rate of application as specified in the Special Provisions.

The Contractor shall have the option of sodding in lieu of seeding for lawn installation at no additional expense to the Contracting Agency. Seeding in lieu of sodding will not be allowed.

Seed placed by hand shall be raked into the soil. Following raking, the seeded soil shall be rolled with a smooth 50-pound roller. Sod strips shall be placed within 48 hours of being cut. Placement shall be without voids and have the end joints staggered. Following placement, the sod shall be rolled with a smooth roller to establish contact with the soil.

Barriers shall be erected, with warning signs where necessary, to preclude pedestrian traffic access to the newly placed lawn during the establishment period.

8-02.3(10)C Lawn Establishment

Lawn establishment shall consist of caring for all new lawn areas within the limits of the project.

The lawn establishment period shall begin immediately after the lawn seeding or sodding has been accepted by the Engineer and shall extend to the end of
four mowings or 20 working days whichever is longer. The mowings shall be
done in accordance with Section 8-02.3(10)D.

During the lawn establishment period, the Contractor shall ensure the
continuing healthy growth of the turf. This care shall include keeping the
project in a presentable condition including, but not limited to, removal of litter,
mowing, trimming, removal of grass clippings, edging, fertilization, insecticide
and fungicide applications, weed control, watering, repairing the irrigation
system, and repair and reseeding all damaged areas.

Temporary barriers shall be removed only when directed by the Engineer.

All Work performed under lawn establishment shall comply with established
turf management practices.

Acceptance of lawn planting as specified will be based on a uniform stand of
grass and a uniform grade at the time of final inspection. The Contractor shall
recultivate, re-grade, reseed, and refertilize areas that are bare or have a poor
stand of grass or not having a uniform grade through any cause before final
inspection at no additional cost to the Contracting Agency.

8-02.3(10)D Lawn Mowing
Lawn mowing shall begin immediately after the lawn establishment period has
been accepted by the Engineer and shall extend to the end of the Contract or
the first-year plant establishment, whichever is last.

The Contractor shall accomplish the following minimum requirements:

1. Mow, trim, and edge as often as conditions dictate, at a minimum,
once per week between April and September. Maximum height of
lawn shall not exceed 3 inches. The cutting height shall be 2 inches.
Cuttings, trimmings, and edgings shall be disposed of off the project
site. When the Engineer allows the use of a mulching mower,
trimmings may be left in place.

2. Water as often as conditions dictate depending on weather and soil
conditions.

3. Provide fertilizer, weed control, water, and other measures as
necessary to establish and maintain a healthy stand of grass.

8-02.3(11) Mulch
Mulches associated with seeding and planting shall be of the type specified in the
Special Provisions or as indicated in the Plans. The Contractor shall evenly apply
mulch at the rates indicated in the Plans. Mulches shall not be placed below the
anticipated water level of ditch slopes, pond bank slopes, and stream banks, or in
areas of standing or flowing water.

8-02.3(11)A Mulch for Seeding Areas
The Contractor shall furnish and evenly apply Hydraulically Applied Erosion
Control Product (HECP) Long Term Mulch at the rates indicated and in
accordance with the Manufacturer’s specifications unless otherwise specified.
HECP Long Term Mulch shall be hydraulically applied at the rate of 3500 pounds per acre with no more than 2000 pounds applied in any single lift. HECP mulch shall not be used within the Ordinary High Water Mark.

Mulch sprayed on signs or sign Structures shall be removed the same day.

Areas not accessible by mulching equipment shall be mulched by accepted hand methods.

HECP Long Term Mulch may be applied with seed and fertilizer west of the summit of the Cascade Range. East of the summit of the Cascade Range, seed and fertilizer shall be applied in a single application followed by the application of mulch.

8-02.3(11)B Bark or Woodchip Mulch
The Contractor shall apply bark or wood chip mulch of the type and depth specified where shown in the Plans or as specified in the Special Provisions.

The Contractor shall complete final grading and placement/incorporation of soil amendments within the planting area prior to placement of mulch. Areas receiving bark mulch shall be bare soil or vegetation free before application, except where trees and other plants are specifically identified in the Plans or designated by the Engineer to be saved and protected.

Bark or wood chip mulch shall be placed to a uniform non-compacted depth of 3 inches over all planting areas unless otherwise specified. Mulch shall be feathered to the base of the plant and 1 inch below the top of junction and valve boxes, curbs, and pavement edges.

Any contamination of the mulch due to the Contractor’s operations shall be corrected to its former condition at no additional cost to the Contracting Agency. Mulch placed to a thickness greater than specified shall be at no additional cost to the Contracting Agency.

The Contractor shall keep plant material crowns, runners, and branches free of mulch at all times.

8-02.3(11)C Bark or Woodchip Mulch Rings
The Contractor shall apply mulch rings around plants installed within existing vegetation areas or within seeded areas as shown in the Plans. Bark or wood chip mulch rings shall be applied to the surface of vegetation free amended soil in the isolated plant locations where shown in the Plans or as specified in the Special Provisions. Bark or wood chip mulch shall be placed to a uniform non-compacted depth of 3 inches to a radius of 2 feet around all plants within interplanted plant locations.

8-02.3(12) Completion of Initial Planting
Upon completion of the initial planting within a designated area, the Engineer will make an inspection of all planting areas. The Engineer will notify the Contractor, in writing, of any replacements or corrective action necessary to meet the plant
installation requirements. The Contractor shall replace all plants and associated materials rejected or missing and correct unsatisfactory conditions.

Completion of the initial planting within a designated area includes the following conditions:

1. 100 percent of each of the plant material categories are installed as shown in the Plans.

2. Planting Area is cleaned up.

3. Repairs are completed, including but not limited to, full operation of the irrigation system.

4. Mulch coverage is complete.

5. All weeds are controlled.

8-02.3(13) Plant Establishment

Plant establishment consists of caring for all plants and planting areas within the project limits. The provisions of Sections 1-07.13(2) and 1-07.13(3) do not apply to this Section.

When the Proposal includes the bid item PSIPE____ (Plant Selection Including Plant Establishment), that bid item includes one year of plant establishment Work. The first year of plant establishment shall begin immediately upon written notification from the Engineer of the completion of initial planting for the project. The first-year plant establishment period shall be a minimum of one calendar year. The one calendar year shall be extended an amount equal to any periods where the Contractor does not comply with the plant establishment requirements and plan.

During the first-year plant establishment period, the Contractor shall perform all Work necessary to ensure the resumption and continued growth of the transplanted material. This Work shall include, but is not limited to, applying water, removing foreign, dead, or rejected plant material, maintaining all planting areas in a weed-free condition, and replacing all unsatisfactory plant material planted under the Contract. If plants are stolen or damaged by the acts of others, the Contracting Agency will pay invoice cost only for the replacement plants with no mark-up and the Contractor will be responsible for the labor to install the replacement plants. Other weed control within the project limits but outside of planting, lawn, or seeding areas shall be as specified in Section 8-02.3(3)C.

During the first year of plant establishment, the Contractor shall meet monthly or at an agreed upon schedule with the Engineer for the purpose of joint inspection of the planting material. The Contractor shall correct all unsatisfactory conditions identified by the Engineer within a 10-day period immediately following the inspection. If plant replacement is required, the Contractor shall, within the 10-day period, submit a plan and schedule for the plant procurement and replacement to occur during the planting period as designated in Section 8-02.3(8). At the end of the plant establishment period, plants that do not show normal growth shall be
replaced and all staking and guying that remain on the project shall be removed unless otherwise allowed by the Engineer.

All automatic irrigation systems shall be operated fully automatic during the plant establishment period and until final acceptance of the Contract. Payment for water used to water in plants, or hand watering of plant material or lawn areas unless otherwise specified, is the responsibility of the Contractor during the first-year plant establishment period.

Subsequent year plant establishment periods shall begin immediately at the completion of the preceding year’s plant establishment period. Each subsequent plant establishment period shall be one full calendar year in duration.

During the plant establishment period(s) after the first year plant establishment, the Work necessary for the continued healthy and vigorous growth of all plants material shall be performed as directed by the Engineer.

Payment for water used to water plants during the subsequent year(s) of plant establishment will be paid under the plant establishment item.

8-02.3(14) Plant Replacement
The Contractor shall be responsible for growing or arrange to provide sufficient plants for replacement of all plant material rejected through first-year plant establishment. All replacement plant material shall be inspected and accepted by the Engineer prior to installation. All rejected plant material shall be replaced with acceptable plants meeting the specifications and installed according to the requirements of this Section at dates allowed by the Engineer.

All replacement plants shall be of the same species as the plants they replace and meet the requirements of Section 9-14.8 unless otherwise allowed by the Engineer. Plants may vary in size reflecting one season of growth should the Contractor elect to hold plant material under nursery conditions for an additional year to serve as replacement plants. 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.

8-02.3(15) Bioengineering
Bioengineering consists of using plant materials for the purpose of streambank or earthen slope construction and surface stabilization. This Work may include installing woody plant cuttings in various forms as well as part of streambank or earthen slope construction.

8-02.3(15)A Fascines
Live fascines shall be constructed of live and dead cuttings bundled together with a diameter of 8 to 18 inches. Live cuttings shall be the species shown in the Plans. Dead branches may be cuttings from any woody, non-invasive plant native to the project area. Dead branches may be placed within the live fascine and on the side exposed to the air. Live branches shall be placed in contact with the soil along their entire length. Each live fascine must contain a minimum of eight live branches. Dead branches shall constitute no more than 40 percent of the total fascine content.
The total length of each live fascine shall be a minimum of 5 feet. Branches shall be bundled into log-like forms and bound with biodegradable twine spaced at 1-foot intervals along the entire length of the live fascine. Live fascines shall be installed horizontally in a trench whose depth shall be ½ the diameter of the live fascine. Secure the live fascine with live stakes 3 feet in length and ¾ inch in diameter placed at 18-inch intervals. A minimum of three live stakes shall be used per fascine. The live stakes shall be driven through the live fascine vertically into the slope. The ends of live fascines shall be woven together so that no gap remains between the two sections of the live fascine.

Prior to being covered with soil, the fascine shall be thoroughly watered. Once the fascine is covered with 6 inches of soil, the soil covering the fascine shall be thoroughly watered.

When used to remedy erosion areas, live fascines shall extend a minimum of two feet beyond the visible area of erosion and soil disturbance. The locations for live fascines and live stake rows shall be identified in the field for review and acceptance by the Engineer. The Engineer may require adjustment of fascine locations prior to installation in order to best accomplish the intended functions.

Plant replacement during plant establishment for “PSIPE Live Fascine” will be required for any section void of live shoots for a length of 3 feet or more. Replacement shall consist of installing live stakes, spaced 1 foot apart above the fascine within the area void of live shoots. Live stakes shall be of the same species as the live fascine and shall have a minimum length of 3 feet and a minimum diameter of ¾ inch. The requirements of Section 8-02.3(8) apply to PSIPE Live Fascine.

8-02.3(15)B Brush Mattress
Live brush mattress shall be constructed of live branch cuttings, live poles, jute rope and topsoil. The live cuttings and live poles shall be from the plant species designated in the Plans. Live branch cuttings shall be placed with the cut ends oriented down slope as shown in the Plans. Cuttings shall overlap from side to side and from top to bottom as each layer is constructed. The live branches in each succeeding upper layer shall overlap the adjacent lower layer by a minimum of 6 inches. A maximum of 20 percent of the branches may be dead branches, but the live branches shall be distributed evenly to provide even rooting and growth over the entire area of the brush mattress.

The Contractor shall anchor the live brush mattress to the slope using stakes and jute rope as shown in the Plans. Initially, the stakes shall be installed to protrude above the live brush mattress. The Contractor shall attach the jute rope to the stakes and tighten the rope by tamping the stakes further into the bank, pulling the live brush mattress tight against the soil surface. The Contractor shall cover the live brush mattress with sufficient stockpiled topsoil to ensure good soil contact with the live plant material.

Plant replacement during plant establishment for “PSIPE Live Brush Mattress” will be required for any section void of live shoots for an area of 25 square feet or more. Replacement shall consist of installing live stakes, spaced 3 feet
apart in a triangular pattern within the area void of live shoots. Live stakes shall be of the same species as the live brush mattress and shall have a minimum length of 3 feet and a minimum diameter of ¾ inch. The requirements of Section 8-02.3(8) apply to PSIPE Brush Mattress.

8-02.3(15)C Brush Layer
Brush layers shall be constructed of live branch cuttings, randomly mixed, from the plant species listed under the brush layer heading in the Plans. The number of branches required will vary depending on the average branch diameter and layer thickness.

Brush layers shall be placed in a trench dug at a 45 degree incline into the slope or stream bank. Two-thirds to three-fourths of the length of the live branches shall be buried. Soil shall be firmly tamped in place. Succeeding layers shall be spaced as detailed in the Plans. Brush layer placed in stream banks shall be angled downstream.

Brush layers may include plant establishment when designated as PSIPE Brush Layer. Plant replacement for PSIPE Brush Layer will be required for each section void of live shoots for a continuous distance of 3 feet or more. The requirements of Section 8-02.3(8) apply to PSIPE Brush Layer.

8-02.3(16) Roadside Maintenance Under Construction
When the Contract includes the item, Roadside Maintenance Under Construction, this Work includes roadside mowing and ditch maintenance, and noxious weed control outside of planting areas according to Section 8-02.3(3)C.

8-02.3(16)A Roadside Mowing
The Contractor shall mow designated roadside grass areas to the limits designated by the Engineer. Roadside mowing is limited to slopes not steeper than 3(H) to 1(V).

The Contractor shall mow according to the following requirements:

1. Trim around traffic equipment, structures, planting areas, or other features extending above ground preceding or simultaneously with each mowing.

2. Maintain grass between 4 and 12 inches in height.

3. Operate mowing equipment with suitable guards to prevent throwing rocks or debris onto the traveled way or off of the Contracting Agency property. Power driven equipment shall not cause ruts, deformation, and compaction of the vegetated soil.

4. Removing clippings is required on the traveled way, shoulders, walkways, or Structures.

5. Restore soil rutting to a smooth and even grade at the direction of the Engineer.
**8-02.3(16)B Ditch Maintenance**

The Contractor shall maintain drainage for the duration of the Contract according to the following requirements:

1. Maintain flow lines in drainage channels and roadside ditches.
2. Cutting or trimming vegetation within drainage channels to maintain positive flow.
3. Remove dirt and debris from inside of culverts or any drainage area where runoff has allowed accumulations and re-seed for erosion control.
4. Restore channels to previous operational condition.

**8-02.4 Measurement**

Topsoil, bark or woodchip mulch and soil amendments will be measured by the acre or the square yard along the grade and slope of the area covered immediately after placement. Weed control pre-treatment of topsoil areas, excavation, and stockpiling are included in the bid item “Topsoil Type ___.

Bark or woodchip mulch rings will be measured per each.

Compost will be measured by the acre or the square yard along the grade and slope of the area covered immediately after application.

Seeding, fertilizing, and mulching will be measured by the acre or the square yard by ground slope measurement or through the use of design data.

Seeding and fertilizing by hand will be measured by the square yard. No adjustment in area size will be made for the vegetation free zone around each plant.

Seeded lawn, sod installation, and lawn mowing will be measured along the ground slope and computed in square yards of actual lawn completed, established, and accepted.

Plant selection will be measured per each.

PSIPE __ (Plant Selection Including Plant Establishment) will be measured per each.

Live Pole will be measured per each.

Live Stake Row will be measured by the linear foot along the ground slope line.

The pay quantities for plant materials will be determined by count of the number of satisfactory plants in each category accepted by the Engineer.

Fascine and PSIPE live fascine will be measured by the linear foot along the ground slope line.

Brush mattress and PSIPE live brush mattress will be measured by the surface square yard along the ground slope line.
Brush layer and PSIPE brush layer will be measured by the linear foot along the ground slope line.

Water will be measured in accordance with Section 2-07.4. Measurement will be made of only that water hauled in tank trucks or similar equipment.

**8-02.5 Payment**

Payment will be made for each of the following listed Bid items that are included in the Proposal:

- "Project Area Weed and Pest Control" will be paid in accordance with Section 1-09.6. For the purpose of providing a common Proposal for all Bidders, the Contracting Agency entered an amount for "Project Area Weed and Pest Control" in the Proposal to become a part of the total Bid by the Contractor. Payment under this item will be made only when the Work is not already covered by other items.

- "Topsoil Type ____", per acre. The unit Contract price per acre for "Topsoil Type ____" shall be full payment for all costs for furnishing and spreading the compost onto the existing soil.

- "Fine Compost ", per acre or per square yard. "Medium Compost", per acre or per square yard. "Coarse Compost", per acre or per square yard. The unit Contract price per acre for "Fine Compost", "Medium Compost" or "Coarse Compost" shall be full pay for furnishing and spreading the compost onto the existing soil.

- "Soil Amendment", per acre. The unit Contract price per acre for "Soil Amendment" shall be full pay for furnishing and incorporating the soil amendment into the existing soil.

- "Plant Selection ___", per each. The unit Contract price for "Plant Selection ___", per each shall be full pay for all Work to perform the work as specified within the planting area prior to planting for weed control, planting area preparation and installation of plants with initial watering.

As the plants that do not include plant establishment are obtained, propagated, and grown, partial payments will be made as follows:

Payment of 15 percent of the unit Contract price per each when the plant materials have been contracted, propagated, and are growing under nursery conditions. The Contractor shall provide the Engineer with certification that the plant material has been procured or contracted for delivery to the project for planting within the time limits of the project. The certification shall state the location, quantity, and size of all material.

Payment will be increased to 100 percent of the unit Contract price per each for contracted plant material at the completion of the initial planting.
All partial payments shall be limited to the actual number of healthy vigorous plants that meet the stage requirements, limited to plan quantity. Previous partial payments made for materials rejected or missing will be deducted from future payments due the Contractor.

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

As the plants that include plant establishment are obtained, propagated, and grown, partial payments will be made as follows after inspection by the Engineer:

Payment of 5 percent of the unit Contract price, per each, when the plant materials have been contracted, propagated, and are growing under nursery conditions. The Contractor shall provide the Engineer with certification that the plant material has been procured or contracted for delivery to the project for planting within the time limits of the project. The certification shall state the location, quantity, and size of all material.

Payment will be increased to 15 percent of the unit Contract price, per each, upon completion of the initial weed control and planting area preparation Work.

Payment will be increased to 60 percent of the unit Contract price per each for the contracted plant material in a designated unit area when planted.

Payment will be increased to 70 percent of the unit Contract price per each for contracted plant material at the completion of the initial planting.

Payment will be increased to the appropriate percentage upon reaching the following plant establishment milestones:

<table>
<thead>
<tr>
<th>Date</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 30th</td>
<td>80 percent</td>
</tr>
<tr>
<td>September 30th</td>
<td>90 percent</td>
</tr>
<tr>
<td>Completion of first-year plant establishment or after all replacement plants have been installed, whichever is later.</td>
<td>100 percent</td>
</tr>
</tbody>
</table>

Plant establishment milestones are achieved when planting areas meet conditions described in Section 8-02.3(13).

“Seeding, Fertilizing and Mulching”, per acre.

“Seeding and Fertilizing”, per acre or per square yard.

“Seeding and Fertilizing by Hand”, per square yard.

“Second Application of Fertilizer”, per acre.
“Seeding and Mulching”, per acre.

“Seeded Lawn Installation”, per square yard.

“Sod Installation”, per square yard.

“Lawn Mowing”, per square yard.

The unit Contract price per square yard for “Seeded Lawn Installation” or “Sod Installation” shall be full pay for all costs necessary to prepare the area, plant or sod the lawn, erect barriers, control weeds, and establish lawn areas and for furnishing all labor, tools, equipment, and materials necessary to complete the work as specified and shall be paid in the following sequence for healthy, vigorous lawn:

- Completion of Lawn Planting: 60 percent of individual areas
- Mid Lawn Establishment (after two mowings): 85 percent of individual areas
- Completion of Lawn Establishment (after four mowings): 100 percent of individual areas

“Plant Establishment Year _____” will be paid in accordance with Section 1-09.6.

For the purpose of providing a common Proposal for all Bidders, the Contracting Agency entered an amount for “Plant Establishment - _____ Year” in the Proposal to become a part of the total Bid by the Contractor.

“Live Pole”, per each.

“Live Stake Row”, per linear foot.

“Bark or Wood Chip Mulch”, per acre.

“Bark or Wood Chip Mulch Rings”, per each.

The unit Contract price per acre for “Bark or Wood Chip Mulch” shall be full pay for furnishing and spreading the mulch onto the existing soil.

“Fascine” and “PSIPE Live Fascine”, per linear foot.

“Brush Mattress” and “PSIPE Live Brush Mattress”, per square yard.

“Brush Layer” and “PSIPE Brush Layer”, per linear foot.

When PSIPE is included with Fascine, Brush Mattress, or Brush Layer, the payment schedule for PSIPE ____ will apply.

“Roadside Maintenance under Construction” will be paid 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 “Roadside Maintenance Under Construction” in the Proposal to become a part of the total Bid by the Contractor.

“Water”, per M Gal.
8-04.AP8

Section 8-04, Curbs, Gutters, and Spillways
April 2, 2018

8-04.2 Materials
In the first paragraph, the reference to “Portland Cement” is revised to read:

Cement 9-01

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways
The first paragraph is supplemented with the following:

Roundabout truck apron cement concrete curb and gutter shall be constructed with air entrained concrete Class 4000 conforming to the requirements of Section 6-02.

8-06.AP8

Section 8-06, Cement Concrete Driveway Entrances
April 2, 2018

8-06.2 Materials
In the first paragraph, the reference to “Portland Cement” is revised to read:

Cement 9-01

8-06.3 Construction Requirements
The first paragraph is revised to read:

Cement concrete driveway approaches shall be constructed with air entrained concrete Class 4000 conforming to the requirements of Section 6-02 or Portland Cement or Blended Hydraulic Cement Concrete Pavement conforming to the requirements of Section 5-05.

8-07.AP8

Section 8-07, Precast Traffic Curb
April 2, 2018

8-07.3(1) Installing Curbs
The first sentence of the first paragraph is revised to read:

The curb shall be firmly bedded for its entire length and breadth on a mortar bed conforming to Section 9-20.4(3) composed of one part Portland cement or blended hydraulic cement and two parts sand.

The fourth paragraph is revised to read:

All joints between adjacent pieces of curb except joints for expansion and/or drainage as designated by the Engineer shall be filled with mortar composed of one part Portland cement or blended hydraulic cement and two parts sand.
Section 8-09, Raised Pavement Markers  
April 1, 2019

8-09.5 Payment  
The last paragraph is revised to read:

The unit Contract price per hundred for “Raised Pavement Marker Type 1”, “Raised Pavement Marker Type 2”, “Raised Pavement Marker Type 3______ In.”, and “Recessed Pavement Marker” shall be full pay for furnishing and installing the markers in accordance with these Specifications.

Section 8-11, Guardrail  
April 1, 2019

8-11.3(1)A Erection of Posts  
The first sentence of the first paragraph is revised to read:

Posts shall be set to the true line and grade of the Highway after the grade is in place and compaction is completed.

8-11.3(1)C Terminal and Anchor Installation  
The first paragraph is revised to read:

All excavation and backfilling required for installation of anchors shall be performed in accordance with Section 2-09, except that the costs thereof shall be included in the unit Contract price for the anchor installed.

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

Assembly and installation of Beam Guardrail Non-flared Terminals for Type 31 guardrail shall be supervised at all times by a manufacturer’s representative, or an installer who has been trained and certified by the manufacturer.

The last paragraph is revised to read:

Beam Guardrail Non-flared Terminals for Type 31 guardrail shall meet the crash test and evaluation criteria in the Manual for Assessing Safety Hardware (MASH).

8-11.4 Measurement  
The third paragraph is revised to read:

Measurement of beam guardrail _____ terminal will be per each for the completed terminal.

The fourth paragraph is revised to read:

Measurement of beam guardrail Type 31 buried terminal Type 2 will be per linear foot for the completed terminal.

The sixth paragraph is revised to read:
Measurement of beam guardrail anchor Type 10 will be per each for the completed anchor, including the attachment of the anchor to the guardrail.

8-11.5 Payment
The Bid item “Beam Guardrail Anchor Type ____”, per each is revised to read “Beam Guardrail Anchor Type 10”, per each.

The Bid item “Beam Guardrail Buried Terminal Type 1”, per each is deleted from this section.

The Bid item “Beam Guardrail Buried Terminal Type 2”, per linear foot and the following paragraph are revised to read:

“Beam Guardrail Type 31 Buried Terminal Type 2”, per linear foot.

The unit Contract price per linear foot for “Beam Guardrail Type 31 Buried Terminal Type 2” shall be full payment for all costs to obtain and provide materials and perform the Work as described in Section 8-11.3(1)C.

8-14.AP8
Section 8-14, Cement Concrete Sidewalks
April 2, 2018

8-14.2 Materials
In the first paragraph, the reference to “Portland Cement” is revised to read:

Cement 9-01

In the second paragraph, each reference to “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

8-16.AP8
Section 8-16, Concrete Slope Protection
April 2, 2018

8-16.2 Materials
In the first paragraph, the last two material references are revised to read:

Poured Portland Cement or Blended Hydraulic Cement
Concrete Slope Protection 9-13.5(2)
Pneumatically Placed Portland Cement or Blended Hydraulic Cement Concrete Slope Protection 9-13.5(3)

8-17.AP8
Section 8-17, Impact Attenuator Systems
January 7, 2019

8-17.3 Construction Requirements
This section is supplemented with the following:
Permanent impact attenuators shall meet the crash test and evaluation criteria of the Manual for Assessing Safety Hardware (MASH), except as otherwise noted in the Plans or Special Provisions.

Section 8-20, Illumination, Traffic Signal Systems, Intelligent Transportation Systems, and Electrical
August 6, 2018

8-20.1(1) Regulations and Code

The last paragraph is revised to read:
Persons performing electrical Work shall be certified in accordance with and supervised as required by RCW 19.28.161. Proof of certification shall be worn at all times in accordance with WAC 296-46B-942. Persons failing to meet these certification requirements may not perform any electrical work, and shall stop any active electrical work, until their certification is provided and worn in accordance with this Section.

8-20.2(2) Equipment List and Drawings

This section is renumbered:

8-20.2(1) Equipment List and Drawings

8-20.3(4) Foundations

The second sentence of the first paragraph is revised to read:
Concrete for Type II, III, IV, V, and CCTV signal standards and light standard foundations shall be Class 4000P and does not require air entrainment.

8-20.3(5)A General

The last two sentences of the last paragraph is deleted.

This section is supplemented with the following:
All conduits shall include a pull tape with the equipment grounding conductor. The pull tape shall be attached to the conduit near the end bell or grounded end bushing, or to duct plugs or caps if present, at both ends of the conduit.

8-20.3(8) Wiring

The seventeenth paragraph is supplemented with the following:
Pulling tape shall meet the requirements of Section 9-29.1(10). Pull string may not be used.

8-20.3(14)C Induction Loop Vehicle Detectors

Item number 2 is deleted.

Item numbers 3 through 12 are renumbered to 2 through 11, respectively.
8-21.AP8  
Section 8-21, Permanent Signing  
January 7 2019  

8-21.3(5) Sign Relocation  
The second sentence of the first paragraph is revised to read:  

Where the existing sign Structure is mounted on concrete pedestals, the Contractor  
shall remove the pedestal to a minimum of 2 feet below finished grade and backfill the  
remaining hole with material similar to that surrounding the hole.  

8-21.3(9)F Foundations  
Item number 3 of the twelfth paragraph is supplemented with the following new sentence:  

Class 4000P concrete for roadside sign structures does not require air entrainment.  

8-22.AP8  
Section 8-22, Pavement Marking  
January 7, 2019  

8-22.3(2) Preparation of Roadway Surfaces  
The second paragraph is revised to read:  

Remove all other contaminants from pavement surfaces that may adversely affect the  
installation of new pavement marking.  

8-22.3(3)F Application Thickness  
The second to last sentence of the last paragraph is revised to read:  

After grinding, clean the groove.  

9-00.AP9  
Section 9-00, Definitions and Tests  
January 7, 2019  

9-00.4 Sieves for Testing Purposes  
This section is revised to read:  

Test sieves shall be made of either: (1) woven wire cloth conforming to ASTM E11, or  
(2) square-hole, perforated plates conforming to ASTM E323.  

9-00.7 Galvanized Hardware, AASHTO M 232  
The first sentence is revised to read:  

An acceptable alternate to hot-dip galvanizing in accordance with AASHTO M 232 will  
be zinc coatings mechanically deposited in accordance with ASTM B695, providing the  
minimum thickness of zinc coating is not less than that specified in AASHTO M 232,  
and the process will not produce hydrogen embrittlement in the base metal.
9-02.AP9

Section 9-02, Bituminous Materials
January 7, 2019

9-02.1 Asphalt Material, General

The second paragraph is revised to read:

The Asphalt Supplier of Performance Graded (PG) asphalt binder and emulsified asphalt shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 2 “Standard Practice for Asphalt Suppliers That Certify Performance Graded and Emulsified Asphalts”. The Asphalt Supplier’s QCP shall be submitted and receive the acceptance of the WSDOT State Materials Laboratory. Once accepted, any change to the QCP will require a new QCP to be submitted for acceptance. The Asphalt Supplier of PG asphalt binder and emulsified asphalt shall certify through the Bill of Lading that the PG asphalt binder or emulsified asphalt meets the Specification requirements of the Contract.

9-02.1(4) Performance Graded Asphalt Binder (PGAB)

This section’s title is revised to read:

Performance Graded (PG) Asphalt Binder

The first paragraph is revised to read:

PG asphalt binder meeting the requirements of AASHTO M 332 Table 1 of the grades specified in the Contract shall be used in the production of HMA. For HMA with greater than 20 percent RAP by total weight of HMA, or any amount of RAS, the new asphalt binder, recycling agent and recovered asphalt (RAP and/or RAS) when blended in the proportions of the mix design shall meet the PG asphalt binder requirements of AASHTO M 332 Table 1 for the grade of asphalt binder specified by the Contract.

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

In addition to AASHTO M 332 Table 1 specification requirements, PG asphalt binders shall meet the following requirements:

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>PG58S-22</th>
<th>PG58H-22</th>
<th>PG58V-22</th>
<th>PG64S-28</th>
<th>PG64H-28</th>
<th>PG64V-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTFO Residue: Average Percent Recovery @ 3.2 kPa</td>
<td>AASHTO T 350(^1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>30% Min.</td>
<td>20% Min.</td>
<td>25% Min.</td>
<td>30% Min.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)Specimen conditioned in accordance with AASHTO T 240 – RTFO.

The third paragraph is revised to read:
The RTFO $J_{\text{ndiff}}$ and the PAV direct tension specifications of AASHTO M 332 are not required.

9-02.1(6) Cationic Emulsified Asphalt

This section is revised to read:

Cationic Emulsified Asphalt meeting the requirements of AASHTO M 208 Table 1 of the grades specified in the Contract shall be used.

9-02.5 Warm Mix Asphalt (WMA) Additive

This section, including title, is revised to read:

9-02.5 HMA Additive

Additives for HMA shall be accepted by the Engineer.

9-03.1 Aggregates for Portland Cement Concrete

This section’s title is revised to read:

Aggregates for Concrete

9-03.1(1) General Requirements

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

Concrete aggregates shall be manufactured from ledge rock, talus, or sand and gravel in accordance with the provisions of Section 3-01. Reclaimed aggregate may be used if it complies with the specifications for concrete.

The second paragraph (up until the colon) is revised to read:

Aggregates for concrete shall meet the following test requirements:

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

The Contractor shall submit test results according to ASTM C1567 through the Engineer to the State Materials Laboratory that demonstrate that the proposed fly ash when used with the proposed aggregates and cement will control the potential expansion to 0.20 percent or less before the fly ash and aggregate sources may be used in concrete.

9-03.1(2) Fine Aggregate for Portland Cement Concrete

This section’s title is revised to read:

Fine Aggregate for Concrete

9-03.1(4) Coarse Aggregate for Portland Cement Concrete

This section’s title is revised to read:
Coarse Aggregate for Concrete

9-03.1(4)C Grading
The first paragraph (up until the colon) is revised to read:

Coarse aggregate for concrete when separated by means of laboratory sieves shall conform to one or more of the following gradings as called for elsewhere in these Specifications, Special Provisions, or in the Plans:

9-03.1(5) Combined Aggregate Gradation for Portland Cement Concrete
This section’s title is revised to read:

Combined Aggregate Gradation for Concrete

9-03.1(5)B Grading
In the last paragraph, “WSDOT FOP for WAQTC/AASHTO T 27/T 11” is revised to read “FOP for WAQTC/AASHTO T 27/T 11”.

9-03.2 Aggregate for Job-Mixed Portland Cement Mortar
This section’s title is revised to read:

Aggregate for Job-Mixed Portland Cement or Blended Hydraulic Cement Mortar

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

Fine aggregate for portland cement or blended hydraulic cement mortar shall consist of sand or other inert materials, or combinations thereof, accepted by the Engineer, having hard, strong, durable particles free from adherent coating.

9-03.4(1) General Requirements
The first paragraph (up until the colon) is revised to read:

Aggregate for bituminous surface treatment shall be manufactured from ledge rock, talus, or gravel, in accordance with Section 3-01. Aggregates for Bituminous Surface Treatment shall meet the following test requirements:

9-03.8(1) General Requirements
The first paragraph (up until the colon) is revised to read:

Aggregates for Hot Mix Asphalt shall meet the following test requirements:

9-03.8(2) HMA Test Requirements
The two tables in the second paragraph are replaced with the following three tables:

<table>
<thead>
<tr>
<th>Mix Criteria</th>
<th>HMA Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3/8 inch</td>
</tr>
<tr>
<td>Voids in Mineral Aggregate (VMA), %</td>
<td>15.0</td>
</tr>
<tr>
<td>Voids Filled With Asphalt (VFA), %</td>
<td>VFA</td>
</tr>
<tr>
<td>Dust/Asphalt Ratio</td>
<td>0.6</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Method</th>
<th>ESAL's (millions)</th>
<th>Number of Passes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamburg Wheel-Track Testing, FOP for AASHTO T 324 Minimum Number of Passes with no Stripping Inflection Point and Maximum Rut Depth of 10mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 0.3</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>0.3 to &lt; 3</td>
<td>12,500</td>
<td></td>
</tr>
<tr>
<td>≥ 3</td>
<td>15,000</td>
<td></td>
</tr>
<tr>
<td>Indirect Tensile (IDT) Strength (psi) of Bituminous Materials FOP for ASTM D6931</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>175 Maximum</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Gmm</th>
<th>ESAL's (millions)</th>
<th>N initial</th>
<th>N design</th>
<th>N maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0.3</td>
<td>≤ 91.5</td>
<td>96.0</td>
<td>≤ 98.0</td>
<td></td>
</tr>
<tr>
<td>0.3 to &lt; 3</td>
<td>≤ 90.5</td>
<td>96.0</td>
<td>≤ 98.0</td>
<td></td>
</tr>
<tr>
<td>≥ 3</td>
<td>≤ 89.0</td>
<td>96.0</td>
<td>≤ 98.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gyratory Compaction (number of gyrations)</th>
<th>ESAL's (millions)</th>
<th>N initial</th>
<th>N design</th>
<th>N maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0.3</td>
<td>6</td>
<td>50</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>0.3 to &lt; 3</td>
<td>7</td>
<td>75</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>&gt; 3</td>
<td>8</td>
<td>100</td>
<td>160</td>
<td></td>
</tr>
</tbody>
</table>

### 9-03.8(7) HMA Tolerances and Adjustments

In the table in item number 1, the fifth row is revised to read:

| Asphalt binder | -0.4% to 0.5% | ±0.7% |

In the table in item number 1, the following new row is inserted before the last row:

| Voids in Mineral Aggregate, VMA | -1.0% |

### 9-03.9(1) Ballast

The second paragraph (up until the colon) is revised to read:

Aggregates for ballast shall meet the following test requirements:

### 9-03.14(4) Gravel Borrow for Structural Earth Wall

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

The material shall be substantially free of shale or other soft, poor durability particles, and shall not contain recycled materials, such as glass, shredded tires, concrete rubble, or asphaltic concrete rubble.

### 9-03.21(1)B Recycled Concrete Aggregate Approval and Acceptance

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

Recycled concrete aggregate may be used as coarse aggregate or blended with coarse aggregate for Commercial Concrete, Class 3000 concrete, or Cement Concrete Pavement.
Item number 4 of the second paragraph is revised to read:

4. For Cement Concrete Pavement mix designs using recycled concrete aggregates, the Contractor shall submit evidence that ASR mitigating measures control expansion in accordance with Section 9-03.1(1).

This section is supplemented with the following new subsection:

9-03.21(1)B1 Recycled Concrete Aggregate Approval and Acceptance

Recycled concrete aggregate may be approved through a three tiered system that consists of the following:

<table>
<thead>
<tr>
<th>Tier 1</th>
<th>Approval Requirements</th>
<th>Acceptance Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approval of the Reclamation Facility is not required.</td>
<td>Certification of toxicity characteristics in accordance with Section 9-03.21(1). Field acceptance testing in accordance with Section 3-04.</td>
</tr>
</tbody>
</table>

Approved to provide the following Aggregate Materials:

- 9-03.10 Aggregate for Gravel Base
- 9-03.12(1)B Gravel Backfill for Foundations Class B
- 9-03.12(2) Gravel Backfill for Walls
- 9-03.12(3) Gravel Backfill for Pipe Zone Bedding
- 9-03.14(1) Gravel Borrow
- 9-03.14(2) Select Borrow
- 9-03.14(2) Select Borrow (greater than 3 feet below subgrade and side slope)
- 9-03.14(3) Common Borrow
- 9-03.14(3) Common Borrow (greater than 3 feet below subgrade and side slope)
- 9-03.17 Foundation Material Class A and Class B
- 9-03.18 Foundation Material Class C
- 9-03.19 Bank Run Gravel for Trench Backfill

<table>
<thead>
<tr>
<th>Tier 2</th>
<th>Approval Requirements</th>
<th>Acceptance Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Reclamation Facility shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 9 “Standard Practice for Approval of Reclamation Facilities of WSDOT Recycled Concrete and Returned Concrete”. The Reclamation Facility’s QCP shall be submitted and approved by the WSDOT State Materials Laboratory. Once accepted, any changes to the QCP will require a new QCP to be submitted for acceptance. Evaluation of aggregate source properties (LA Wear and Degradation) for the recycled concrete aggregate is not required.</td>
<td>Certification of toxicity characteristics in accordance with Section 9-03.21(1), required if requested. Field acceptance testing in accordance with Section 3-04 is required. Provide certification in accordance with WSDOT QC 9 for every lot. A lot shall be no larger than 10,000 tons.</td>
</tr>
</tbody>
</table>

Approved to provide the following Aggregate Materials:

Tier 1 aggregate materials
Tier 3

Approval Requirements

The Reclamation Facility shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 10 “Standard Practice for Approval of Reclamation Facilities of Recycled Concrete Aggregates from Stockpiles of Unknown Sources”. The Reclamation Facility’s QCP shall be submitted and approved by the WSDOT State Materials Laboratory. Once accepted, any changes to the QCP will require a new QCP to be submitted for acceptance.

Evaluation of aggregate source properties (LA Wear and Degradation) for the recycled concrete aggregate is required.

Acceptance Requirements

Certification of toxicity characteristics in accordance with Section 9-03.21(1) is required.

Field acceptance testing in accordance with Section 3-04 is required.

Provide certification in accordance with WSDOT QC 10 for every lot. A lot shall be no larger than 10,000 tons

Approved to provide the following Aggregate Materials:

- Tier 1 aggregate materials
- 9-03.1 Coarse Aggregate for Commercial Concrete or Concrete class 3000
- 9-03.9(1) Ballast
- 9-03.9(2) Permeable Ballast
- 9-03.9(3) Crushed Surfacing
- 9-03.12(1)A Gravel Backfill for Foundations Class A

For Reclamation Facilities that do not participate in Tier 2 and Tier 3, approval of recycled concrete aggregate will be in accordance with Section 9-03.21(1), and acceptance will be in accordance with Section 3-04.

9-03.21(1)E Table on Maximum Allowable percent (By Weight) of Recycled Material

“Portland Cement” is deleted from the first two rows in the table.

The following new row is inserted after the second row:

| Coarse Aggregate for Concrete Pavement | 9-03.1(4) | 0 | 100 | 0 | 0 |

The first column of the fourth row (after the preceding Amendment is applied) is revised to read:

Coarse Aggregate for Commercial Concrete and Class 3000 Concrete
Section 9-04, Joint and Crack Sealing Materials
January 7, 2019

This section’s title is revised to read:

Joint Sealing Materials

9-04.1(2) Premolded Joint Filler for Expansion Joints
In this section, each reference to “AASHTO T 42” is revised to read “ASTM D 545”.

9-04.2(1)A1 Hot Poured Sealant for Cement Concrete Pavement
This section is supplemented with the following:

Hot poured sealant for cement concrete pavement is acceptable for installations in joints where cement concrete pavement abuts a bituminous pavement.

9-04.2(1)A2 Hot Poured Sealant for Bituminous Pavement
This section is supplemented with the following:

Hot poured sealant for bituminous pavement is acceptable for installations in joints where cement concrete pavement abuts a bituminous pavement.

9-04.2(1)B Sand Slurry for Bituminous Pavement
Item number 2 of the first paragraph is revised to read:

2. Two percent portland cement or blended hydraulic cement, and

9-04.3 Joint Mortar
The first paragraph is revised to read:

Mortar for hand mortared joints shall conform to Section 9-20.4(3) and consist of one part portland cement or blended hydraulic cement, three parts fine sand, and sufficient water to allow proper workability.

9-04.5 Flexible Plastic Gaskets
In the table, the Test Method value for Specific Gravity at 77°F is revised to read “ASTM D71”.

In the table, the Test Method value for Flash Point COC, F is revised to read “ASTM D93 REV A”.

In the table, the Test Method value for Volatile Matter is revised to read “ASTM D6”.

Section 9-05, Drainage Structures and Culverts
January 7, 2019

9-05.3(1)A End Design and Joints
The second sentence of the first paragraph is revised to read:
The joints and gasket material shall meet the requirements of ASTM C990.

**9-05.3(1)C  Age at Shipment**

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

Unless it is tested and accepted at an earlier age, it shall not be considered ready for shipment sooner than 28 days after manufacture when made with Type II portland cement or blended hydraulic cement, nor sooner than 7 days when made with Type III portland cement.

**9-05.7(3)  Concrete Storm Sewer Pipe Joints**

The second sentence is revised to read:

The joints and gasket material shall meet the requirements of ASTM C990.

**9-05.7(4)A  Hydrostatic Pressure on Pipes in Straight Alignment**

The first sentence is revised to read:

Hydrostatic pressure tests on pipes in straight alignment shall be made in accordance with the procedure outlined in Section 10 of ASTM C990, except that they shall be performed on an assembly consisting of not less than three nor more than five pipe sections selected from stock by the Engineer and assembled in accordance with standard installation instructions issued by the manufacturer.

**9-05.24(1)  Polypropylene Culvert Pipe and Storm Sewer Pipe**

This section is revised to read:

Polypropylene culvert and storm sewer pipe shall conform to the following requirements:

1. For dual wall pipe sizes up to 60 inches: ASTM F2881 or AASHTO M 330, Type S or Type D.

2. For double or triple wall pipe sizes up to 60 inches: ASTM F2764.

3. Fittings shall be factory welded, injection molded, or PVC.

**9-05.24(2)  Polypropylene Sanitary Sewer Pipe**

This section is revised to read:

Polypropylene sanitary sewer pipe shall conform to the following requirements:

1. For pipe sizes up to 60 inches: ASTM F2764.

2. Fittings shall be factory welded, injection molded, or PVC.

9-06.AP9

**Section 9-06, Structural Steel and Related Materials**

**January 7, 2019**

**9-06.5  Bolts**

This section’s title is revised to read:
Bolts and Rods

9-06.5(4) Anchor Bolts
This section, including title, is revised to read:

9-06.5(4) Anchor Bolts and Anchor Rods
Anchor bolts and anchor rods shall meet the requirements of ASTM F1554 and, unless otherwise specified, shall be Grade 105 and shall conform to Supplemental Requirements S2, S3, and S4.

Nuts for ASTM F1554 Grade 105 black anchor bolts and anchor rods shall conform to ASTM A563, Grade D or DH. Nuts for ASTM F1554 Grade 105 galvanized anchor bolts and anchor rods shall conform to either ASTM A563, Grade DH, or AASHTO M292, Grade 2H, and shall conform to the overtapping, lubrication, and rotational testing requirements in Section 9-06.5(3). Nuts for ASTM F1554 Grade 36 or 55 black or galvanized anchor bolts and anchor rods shall conform to ASTM A563, Grade A or DH. Washers shall conform to ASTM F436.

The bolts and rods shall be tested by the manufacturer in accordance with the requirements of the pertinent Specification and as specified in these Specifications. Anchor bolts, anchor rods, nuts, and washers shall be inspected prior to shipping to the project site. The Contractor shall submit to the Engineer for acceptance a Manufacturer's Certificate of Compliance for the anchor bolts, anchor rods, nuts, and washers, as defined in Section 1-06.3. If the Engineer deems it appropriate, the Contractor shall provide a sample of the anchor bolt, anchor rod, nut, and washer for testing.

All bolts, rods, nuts, and washers shall be marked and identified as required in the pertinent Specification.

9-06.15 Welded Shear Connectors
The third paragraph is revised to read:

Mechanical properties shall be determined in accordance with AASHTO T 244.

9-06.17 Vacant
This section, including title, is revised to read:

9-06.17 Noise Barrier Wall Access Door
Access door frames shall be formed of 14-gauge steel to the size and dimensions shown in the Plans. The access door frame head and jamb members shall be mitered, securely welded, and ground smooth. Each head shall have two anchors and each jamb shall have three anchors. The hinges shall be reinforced with ¼-inch by 12-inch plate, width equal to the full inside width of the frame.

Access doors shall be full flush 1-¾-inch thick seamless doors with a polystyrene core. Door faces shall be constructed with smooth seamless 14-gauge roller-levered, cold-rolled steel sheet conforming to ASTM A 792 Type SS, Grade 33 minimum, Coating Designation AZ55 minimum. The vertical edges shall be neat interlocked hemmed edge seam. The top and bottom of the door shall be enclosed with 14-gauge channels. Mortise and reinforcement for locks and hinges shall be 10-gauge steel. Welded top cap
shall be ground and filled for exterior applications. The bottom channel shall have weep holes.

Each access door shall have three hinges. Access door hinges shall be ASTM A 276 Type 316 stainless steel, 4-½-inches square, with stainless steel ball bearing and non-removable pins.

Each access door shall have two pull plates. The pull plates shall be ASTM A 240 Type 316 stainless steel, with a grip handle of one-inch diameter and 8 to 10-inches in length.

The door assembly shall be fabricated and assembled as a complete unit including all hardware specified prior to shipment.

9-06.18 Metal Bridge Railing
The second sentence of the first paragraph is revised to read:

Steel used for metal railings, when galvanized after fabrication in accordance with AASHTO M111, shall have a controlled silicon content of either 0.00 to 0.06 percent or 0.15 to 0.25 percent.

9-07.AP9
Section 9-07, Reinforcing Steel
January 7, 2019

9-07.5(1) Epoxy-Coated Dowel Bars (for Cement Concrete Rehabilitation)
This section (including title) is revised to read:

9-07.5(1) Dowel Bars for Cement Concrete Pavement Rehabilitation
Dowel bars for Cement Concrete Pavement Rehabilitation shall be 1 ½ inch outside diameter plain round steel bars or tubular bars 18 inches in length and meet the requirements of one of the following dowel bar types:

1. Epoxy-coated dowel bars shall be round plain steel bars of the dimensions shown in the Standard Plans. They shall conform to AASHTO M31, Grade 60 or ASTM A615, Grade 60 and shall be coated in accordance with ASTM A1078 Type 2 coating, except that the bars may be cut to length after being coated. Cut ends shall be coated in accordance with ASTM A1078 with a patching material that is compatible with the coating, inert in concrete and recommended by the coating manufacturer. The thickness of the epoxy coating shall be 10 mils plus or minus 2 mils. The Contractor shall furnish a written certification that properly identifies the coating material, the number of each batch of coating material used, quantity represented, date of manufacture, name and address of manufacturer, and a statement that the supplied coating material meets the requirements of ASTM A1078 Type 2 coating. Patching material, compatible with the coating material and inert in concrete and recommended by the manufacturer shall be supplied with each shipment for field repairs by the Contractor.

2. ASTM A513 steel tubes made from Grade 60 Carbon Steel Tube with a 1.625 inch outside diameter and a 0.120 inch wall thickness. Both the inside and outside of the tube shall be zinc coated with G40 galvanizing in accordance with ASTM A653. Following zinc coating the tubes shall be coated in

AMENDMENTS TO THE 2018 STANDARD SPECIFICATIONS BOOK
Revised: 4/1/19
accordance with Section 9-07.5(1) item 1. The ends of the tube shall be capped to prevent intrusion of concrete or other materials.

9-07.5(2) Corrosion Resistant Dowel Bars (for Cement Concrete Pavement and Cement Concrete Pavement Rehabilitation)

The first paragraph (up until the colon) is revised to read:

Corrosion resistant dowel bars shall be 1½ inch outside diameter plain round steel bars or tubular bars 18 inches in length and meet the requirements of one of the following:

Item number 4 and 5 of the first paragraph are revised to read:

4. Corrosion-resistant, low-carbon, chromium plain steel bars for concrete reinforcement meeting all the requirements of ASTM A 1035 Alloy Type CS Grade 100 or Alloy Type CS Grade 120.

5. Zinc Clad dowel bars shall be 1½ inch solid bars or 1.625 inch outside diameter by 0.120 inch wall tubular bars meeting the chemical and physical properties of AASHTO M 31, Grade 60, or AASHTO M 255, Grade 60. The bars shall have a minimum of 0.035 inches A710 Zinc alloy clad to the plain steel inner bar or tube. A710 Zinc shall be composed of: zinc: 99.5 percent, by weight, minimum; copper: 0.1-0.25 percent, by weight; and iron: 0.0020 percent, by weight, maximum. Each end of tubular bars shall be plugged using a snug-fitting insert to prohibit any intrusion of concrete or other materials.

The numbered list in the first paragraph is supplemented with the following:

6. Multicoated fusion bonded epoxy bars shall consist of an ASTM A615 bar with alternating layers of ASTM A934 coating and an abrasion resistant overcoat (ARO). The ASTM A934 coating shall form the base and there shall be two layers of each coating material. The minimum thickness of the combined layers of the ASTM A934 coating and ARO coating shall be 20 mils. The ARO shall meet the following requirements:

<table>
<thead>
<tr>
<th>Test</th>
<th>Method</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gouge Resistance</td>
<td>NACE TM0215, 30 kg wt., LS-1 bit @ 25°C</td>
<td>&lt; 0.22 mm</td>
</tr>
<tr>
<td>Gouge Resistance</td>
<td>NACE TM0215, 50 kg wt., LS-1 bit @ 25°C</td>
<td>&lt; 0.44 mm</td>
</tr>
</tbody>
</table>

7. ASTM A513 steel tubes made from Grade 60 Carbon Steel Tube with a 1.625 inch outside diameter and a 0.120 inch wall thickness. Both the inside and outside of the tube shall be zinc coated with G90 galvanizing in accordance with ASTM A653. Following zinc coating the tubes shall be coated in accordance with Section 9-07.5(1) item 1. The ends of the tube shall be capped to prevent intrusion of concrete or other materials.

The last paragraph is revised to read:

Stainless Steel Clad and Stainless Steel Tube Dowel bar ends shall be sealed with a patching material (primer and finish coat) used for patching epoxy-coated reinforcing steel as required in Section 9-07.3, item 6.
9-07.7  Wire Mesh
This section is supplemented with the following:

Welded wire manufacturers shall participate in the NTPEP Audit Program for Reinforcing Steel (rebar) Manufacturers and shall be listed on the NTPEP audit program website displaying that they are NTPEP compliant.

9-08.AP9

Section 9-08, Paints and Related Materials
January 7, 2019

9-08.1(1)  Description
The first sentence is revised to read:

Paint used for highway and bridge structure applications shall be made from materials meeting the requirements of the applicable Federal and State Paint Specifications, Department of Defense (DOD), American Society of Testing of Materials (ASTM), and The Society for Protective Coatings (SSPC) specifications in effect at time of manufacture.

9-08.1(2)  Paint Types
This section is supplemented with the following new subsections:

9-08.1(2)M  NEPCOAT Qualified Products List A
Qualified products used shall be part of a NEPCOAT system supplied by the same manufacturer.

9-08.1(2)N  NEPCOAT Qualified Products List B
Qualified products used shall be part of a NEPCOAT system supplied by the same manufacturer.

9-08.1(2)D  Organic Zinc-Rich Primer
This section, including title, is revised to read:

Vacant

9-08.1(2)E  Epoxy Polyamide
This section is revised to read:

Epoxy polyamide shall be a two-component system conforming to MIL-DTL-24441 or SSPC Coating Standard No. 42.

9-08.1(2)H  Top Coat, Single-Component, Moisture-Cured Polyurethane
This section is revised to read:

Vehicle Type: Moisture-cured aliphatic polyurethane.
Color and Gloss: Meet the SAE AMS Standard 595 Color as specified in the table below.

The Top Coat shall meet the following requirements:
The resin shall be an aliphatic urethane.

Minimum-volume solids 50 percent.

The top coat shall be semi-gloss.

<table>
<thead>
<tr>
<th>Color</th>
<th>Semi-Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington Gray</td>
<td>26357</td>
</tr>
<tr>
<td>Mt. Baker Gray</td>
<td>26134</td>
</tr>
<tr>
<td>Mt. St. Helens Gray</td>
<td>26306</td>
</tr>
<tr>
<td>Cascade Green</td>
<td>24158</td>
</tr>
</tbody>
</table>

9-08.1(2)I Rust-Penetrating Sealer

This section is revised to read:

Rust-penetrating sealer shall be a two-component, chemically-cured, 100 percent solids epoxy.

9-08.1(2)J Black Enamel

This section is revised to read:

The enamel shall conform to Federal Specification MIL PRF 24635E Type II Class 2.

9-08.1(2)K Orange Equipment Enamel

The first paragraph is revised to read:

The enamel shall be an alkyd gloss enamel conforming to Federal Specification MIL-PRF-24635E Type II Class 1. The color, when dry, shall match that of SAE AMS Standard 595, color number 12246.

9-08.1(2)L Exterior Acrylic Latex Paint-White

The first paragraph is revised to read:

This paint shall conform to Federal Specification MIL-PRF-24635E Type II Class 1, 2 or 3.

9-08.1(7) Acceptance

This section is revised to read:

For projects with moisture-cured polyurethane quantities less than 20 gallons, acceptance will be by the Manufacturer’s Certificate of Compliance.

For projects with moisture-cured polyurethane quantities greater than 20 gallons, the product shall be listed in the current WSDOT Qualified Products List (QPL). If the lot number is listed on the QPL, it may be accepted without additional testing. If the lot number is not listed on the QPL, a 1 quart sample shall be submitted to the State Materials Laboratory for testing and acceptance.

For all other paint types, acceptance will be based on visual inspection.
9-08.1(8) Standard Colors
In the first paragraph, the reference to “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

The second paragraph is revised to read:

Unless otherwise specified, all top or finish coats shall be semi-gloss, with the paint falling within the range of 35 to 70 on the 60-degree gloss meter.

9-08.2 Powder Coating Materials for Coating Galvanized Surfaces
The last paragraph is revised to read:

Repair materials shall be as recommended by the powder coating manufacturer and as specified in the Contractor’s powder coating plan as accepted by the Engineer.

9-08.3 Pigmented Sealer Materials for Coating of Concrete Surfaces
This section, including title, is revised to read:

9-08.3 Concrete Surface Treatments
9-08.3(1) Pigmented Sealer Materials
The pigmented sealer shall be a semi-opaque, colored toner containing only methyl methacrylate-ethyl acrylate copolymer resins, toning pigments suspended in solution at all times by a chemical suspension agent, and solvent. Toning pigments shall be laminar silicates, titanium dioxide, and inorganic oxides only. There shall be no settling or color variation. Tinting shall occur at the factory at the time of manufacture and placement in containers, prior to initial shipment. Use of vegetable or marine oils, paraffin materials, stearates, or organic pigments in any part of coating formulation will not be permitted. The color of pigmented sealer shall be as specified by the Contracting Agency. The Contractor shall submit a 1-quart wet sample, a drawdown color sample, and spectrophotometer or colorimeter readings taken in accordance with ASTM D2244, for each batch and corresponding standard color card. The calculated Delta E shall not exceed 1.5 from the Commission Internationale de l’Eclairage (CIELAB) when measured at 10 degrees Standard Observer and Illuminant D 65.

The 1-quart wet sample shall be submitted in the manufacturer’s labeled container with product number, batch number, and size of batch. The companion drawdown color sample shall be labeled with the product number, batch number, and size of batch. The Contractor shall submit the specified samples and readings to the Engineer at least 14 calendar days prior to the scheduled application of the sealer. The Contractor shall not begin applying pigmented sealer until receiving the Engineer’s written approval of the pigmented sealer color samples.

9-08.3(2) Exposed Aggregate Concrete Coatings and Sealers
9-08.3(2)A Retardant Coating
Retardant coating shall exhibit the following properties:

1. Retards the set of the surface mortar of the concrete without preventing the concrete to reach the specified 28 day compressive strength.
2. Leaves the aggregate with its original color and luster, and firmly embedded in the concrete matrix.

3. Allows the removal of the surface mortar in accordance with the methods specified in Section 6-02.3(14)E without the use of acidic washing compounds.

4. Allows for uniform removal of the surface mortar.

If the Contractor proposes use of a retardant coating that is not listed in the current WSDOT QPL, the Contractor shall submit a Type 2 Working Drawing consisting of a one quart product sample from a current lot along with supporting product information, Safety Data Sheet, and a Manufacturer’s Certificate of Compliance stating that the product conforms to the above performance requirements.

9-08.3(2)B Clear Sealer
The sealer for concrete surfaces with exposed aggregate finish shall be a clear, non-gloss, penetrating sealer of either a silane, siloxane, or silicone based formulation.

9-08.3(3) Permeon Treatment
Permeon treatment shall be a product of known consistent performance in producing the SAE AMS Standard 595 Color No. 30219 target color hue established by WSDOT, either selected from the WSDOT Qualified Products List (QPL), or an equivalent product accepted by the Engineer. For acceptance of products not listed in the current WSDOT QPL, the Contractor shall submit Type 3 Working Drawings consisting of a one quart product sample from a current lot, supporting product information and a Safety Data Sheet.

9-13.1(1) General
The last paragraph is revised to read:
Riprap and quarry spalls shall be free from segregation, seams, cracks, and other defects tending to destroy its resistance to weather and shall meet the following test requirements:

9-13.5 Concrete Slope Protection
This section is revised to read:
Concrete slope protection shall consist of reinforced portland cement or blended hydraulic cement concrete poured or pneumatically placed upon the slope with a rustication joint pattern or semi-open concrete masonry units placed upon the slope closely adjoining each other.

9-13.5(2) Poured Portland Cement Concrete Slope Protection
This section’s title is revised to read:
Poured Portland Cement or Blended Hydraulic Cement Concrete Slope Protection

9-13.5(3) Pneumatically Placed Portland Cement Concrete Slope Protection
This section’s title is revised to read:

Pneumatically Placed Portland Cement or Blended Hydraulic Cement Concrete Slope Protection

The first paragraph is revised to read:

Cement – This material shall be portland cement or blended hydraulic cement as specified in Section 9-01.

9-13.7(1) Rock for Rock Walls and Chinking Material
The first paragraph (up until the colon) is revised to read:

Rock for rock walls and chinking material shall be hard, sound and durable material, free from seams, cracks, and other defects tending to destroy its resistance to weather, and shall meet the following test requirements:

9-14.AP9
Section 9-14, Erosion Control and Roadside Planting
August 6, 2018

9-14.4(2) Hydraulically Applied Erosion Control Products (HECPs)
In Table 1, the last four rows are deleted.

9-14.4(2)A Long-Term Mulch
The first paragraph is supplemented with the following:

Products containing cellulose fiber produced from paper or paper components will not be accepted.

Table 2 is supplemented with the following new rows:

<table>
<thead>
<tr>
<th>Water Holding Capacity</th>
<th>ASTM D 7367</th>
<th>800 percent minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Matter Content</td>
<td>AASHTO T 267</td>
<td>90 percent minimum</td>
</tr>
<tr>
<td>Seed Germination Enhancement</td>
<td>ASTM D 7322</td>
<td>Long Term 420 percent minimum</td>
</tr>
</tbody>
</table>

9-14.4(2)B Moderate-Term Mulch
This section is revised to read:

Within 48 hours of application, the Moderate-Term Mulch shall bond with the soil surface to create a continuous, absorbent, flexible, erosion-resistant blanket. Moderate-Term Mulch shall effectively perform the intended erosion control function in accordance with Section 8-01.3(1) for a minimum of 3 months, or until temporary vegetation has been established, whichever comes first.
Moderate-Term Mulch shall not be used in conjunction with permanent seeding.

9-14.4(2)C Short-Term Mulch
This section is revised to read:

Short-Term Mulch shall effectively perform the intended erosion control function in accordance with Section 8-01.3(1) for a minimum of 2 months, or until temporary vegetation has been established, whichever comes first. Short-Term Mulch shall not be used in conjunction with permanent seeding.

9-16.AP9
Section 9-16, Fence and Guardrail
August 6, 2018

9-16.3(1) Rail Element
The last sentence of the first paragraph is revised to read:

All rail elements shall be formed from 12-gage steel except for thrie beam reducer sections, reduced length thrie beam rail elements, thrie beams used for bridge rail retrofits, and Design F end sections, which shall be formed from 10-gage steel.

9-16.3(5) Anchors
The last paragraph is revised to read:

Cement grout shall conform to Section 9-20.3(4) and consist of one part portland cement or blended hydraulic cement and two parts sand.

9-18.AP9
Section 9-18, Precast Traffic Curb
April 2, 2018

9-18.1(1) Aggregates and Proportioning
Item number 1 of the first paragraph is revised to read:

1. Portland cement or blended hydraulic cement shall conform to the requirements of Section 9-01 except that it may be Type I portland cement conforming to AASHTO M 85.

9-20.AP9
Section 9-20, Concrete Patching Material, Grout, and Mortar
April 1, 2019

9-20.1 Patching Material
This section, including title, is revised to read:

9-20.1 Patching Material for Cement Concrete Pavement
Concrete patching material shall be prepackaged mortar extended with aggregate. The amount of aggregate for extension shall conform to the manufacturer's recommendation.
Patching mortar and patching mortar extended with aggregate shall contain cementitious material and conform to Sections 9-20.1(1) and 9-20.1(2). The Manufacturer shall use the services of a laboratory that has an equipment calibration verification system and a technician training and evaluation process in accordance with AASHTO R 18 to perform all tests specified in Section 9-20.1.

9-20.1(1) Patching Mortar
Patching mortar shall conform to the following requirements:

<table>
<thead>
<tr>
<th>Compressive Strength</th>
<th>ASTM Test Method</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 3 hours</td>
<td>C 39</td>
<td>Minimum 3,000 psi</td>
</tr>
<tr>
<td>at 24 hours</td>
<td>C 39</td>
<td>Minimum 5,000 psi</td>
</tr>
</tbody>
</table>

Length Change

<table>
<thead>
<tr>
<th></th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 28 days</td>
<td>0.15 percent maximum</td>
</tr>
<tr>
<td>Total Chloride Ion Content</td>
<td>1 lb/yd³ maximum</td>
</tr>
</tbody>
</table>

Bond Strength

<table>
<thead>
<tr>
<th></th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 24 hours</td>
<td>Minimum 1,000 psi</td>
</tr>
<tr>
<td>Scaling Resistance (at 25 cycles of freezing and thawing)</td>
<td>1 lb/ft² maximum</td>
</tr>
</tbody>
</table>

9-20.1(2) Patching Mortar Extended with Aggregate
Patching mortar extended with aggregate shall meet the following requirements:

<table>
<thead>
<tr>
<th>Compressive Strength</th>
<th>ASTM Test Method</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 3 hours</td>
<td>C 39</td>
<td>Minimum 3,000 psi</td>
</tr>
<tr>
<td>at 24 hours</td>
<td>C 39</td>
<td>Minimum 5,000 psi</td>
</tr>
</tbody>
</table>

Length Change

<table>
<thead>
<tr>
<th></th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 28 days</td>
<td>0.15 percent maximum</td>
</tr>
</tbody>
</table>

Bond Strength

<table>
<thead>
<tr>
<th></th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 24 hours</td>
<td>Minimum 1,000 psi</td>
</tr>
<tr>
<td>Scaling Resistance (at 25 cycles of freezing and thawing)</td>
<td>2 Maximum Visual Rating</td>
</tr>
<tr>
<td>Freeze thaw</td>
<td>Maximum expansion 0.10% Minimum durability 90.0%</td>
</tr>
</tbody>
</table>

9-20.1(3) Aggregate
Aggregate used to extend the patching mortar shall conform to Section 9-03.1(4) and be AASHTO Grading No. 8. A Manufacturer’s Certificate of Compliance shall be submitted showing the aggregate source and the gradation. Mitigation for Alkali Silica Reaction (ASR) will not be required for the extender aggregate used for concrete patching material.

9-20.1(4) Water
Water shall meet the requirements of Section 9-25.1. The quantity of water shall be within the limits recommended by the repair material manufacturer.
9-20.2 Specifications
This section, including title, is revised to read:

9-20.2 Patching Material for Concrete Structure Repair
Concrete patching material shall be a prepackaged mixture of portland or blended
hydraulic cement, aggregate, and admixtures. Fly ash, ground granulated blast furnace
slag and microsilica fume may be used. The concrete patching material may be
shrinkage compensated. The concrete patching material shall also meet the following
requirements:

- Compressive strength of 6000 psi or higher at 28 days in accordance with
  AASHTO T 22 (ASTM C 39), unless noted otherwise

- Bond strength of 250 psi or higher at 28 days or less in accordance with ASTM
  C 1583 or ICRI 210.3R

- Shrinkage shall be 0.05 percent (500 microstrain) or lower at 28 days in
  accordance with AASHTO T 160 (ASTM C 157) as modified by ICRI 320.3R

- Permeability shall be 2,000 coulombs or lower at 28 days in accordance with
  AASHTO T 277 (ASTM C 1202)

- Freeze-thaw resistance shall have a durability factor of 90 percent or higher
  after a minimum of 300 cycles in accordance with AASHTO T 161 Procedure A
  (ASTM C 666)

- Soluble chloride ion limits in Section 6-02.3(2) shall be satisfied

9-20.2(1) Patching Mortar
This section, including title, is deleted in its entirety.

9-20.2(2) Patching Mortar Extended with Aggregate
This section, including title, is deleted in its entirety.

9-20.3(3) Grout Type 3 for Unconfined Bearing Pad Applications
This section’s title is revised to read:

Grout Type 3 for Unconfined Applications

This section is revised to read:

Grout Type 3 shall be a prepackaged material that does not include expansive
admixtures meeting the following requirements:

- Compressive strength shall be 4000 psi or higher at 28 days in accordance
  with AASHTO T 22 (ASTM C 39) for grout extended with coarse aggregate or
  AASHTO T 106 (ASTM C109) otherwise.

- Bond strength shall meet one of the following:
  - 250 psi or higher at 28 days or less in accordance with ASTM C1583.
2000 psi or higher at 28 days or less in accordance with ASTM C882. The following modification to ASTM C882 is acceptable: use Type 3 Grout in lieu of epoxy resin base bonding system and freshly mixed portland-cement mortar in the procedure for testing Type II and V systems.

- Drying shrinkage shall be 0.08 percent (800 microstrain) or lower at 28 days in accordance with AASHTO T 160 (ASTM C157). The following modification to AASHTO T 160 is acceptable: use a standard specimen size of 3 x 3 x 11-¼ inches.

9-20.5 Bridge Deck Repair Material

Item number 3 of the first paragraph is revised to read:

3. Permeability of less than 2,000 coulombs at 28-days or more in accordance with AASHTO T 277.

9-21.AP9

Section 9-21, Raised Pavement Markers (RPM)

January 2, 2018

9-21.2 Raised Pavement Markers Type 2

This section’s content is deleted.

9-21.2(1) Physical Properties

This section, including title, is revised to read:

9-21.2(1) Standard Raised Pavement Markers Type 2

The marker housing shall contain reflective faces as shown in the Plans to reflect incident light from either a single or opposite directions and meet the requirements of ASTM D 4280 including Flexural strength requirements.

9-21.2(2) Optical Requirements

This section, including title, is revised to read:

9-21.2(2) Abrasion Resistant Raised Markers Type 2

Abrasion Resistant Raised Markers Type 2 shall comply with Section 9-21.2(1) and meet the requirements of ASTM D 4280 with the following additional requirement: The coefficient of luminous intensity of the markers shall be measured after subjecting the entire lens surface to the test described in ASTM D 4280 Section 9.5 using a sand drop apparatus. After the exposure described above, retroreflected values shall not be less than 0.5 times a nominal unblemished sample.

9-21.2(3) Strength Requirements

This section is deleted in its entirety.

9-23.AP9

Section 9-23, Concrete Curing Materials and Admixtures

April 1, 2019

9-23.12 Natural Pozzolan

This section is revised to read:
Natural Pozzolans shall be ground Pumice and shall conform to the requirements of AASHTO M295 Class N, including supplementary optional chemical requirements as set forth in Table 2.

**9-23.13 Blended Supplementary Cementitious Material**

The second sentence is revised to read:

Blended SCMs shall be limited to binary or ternary blends of fly ash, ground granulated blast furnace slag and microsilica fume.

The second to last sentence is deleted.

**9-26.AP9**

**Section 9-26, Epoxy Resins**

**January 7, 2019**

**9-26.1(1) General**

The following new sentence is inserted after the first sentence of the first paragraph:

For pre-packaged cartridge kits, the epoxy bonding agent shall meet the requirements of ASTM C881 when mixed according to manufacturer instructions, utilizing the manufacturer’s mixing nozzle.

**9-26.1(2) Packaging and Marking**

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

The components of the epoxy system furnished under these Specifications shall be supplied in separate containers or pre-packaged cartridge kits that are non-reactive with the materials contained.

The second paragraph is revised to read:

Separate containers shall be marked by permanent marking that identify the formulator, “Component A” (contains the Epoxy Resin) and “Component B” (Contains the Curing Agent), type, grade, class, lot or batch number, mixing instructions and the quantity contained in pounds or gallons as defined by these Specifications.

The following new paragraph is inserted after the second paragraph:

Pre-packaged cartridge kits shall be marked by permanent marking that identify the formulator, type, grade, class, lot or batch number, mixing instructions and the quantity contained in ounces or milliliters as defined by these Specifications.

**9-28.AP9**

**Section 9-28, Signing Materials and Fabrication**

**April 1, 2019**

**9-28.2 Manufacturer’s Identification and Date**

The second sentence is revised to read:
In addition, the width and height dimension, in inches, the Contract number, and the number of the sign as it appears in the Plans shall be placed using 3-inch series C black letters on the back of destination, distance, and large special signs.

9-28.10 Vacant

This section, including title, is revised to read:

9-28.10 Digital Printing

Transparent and opaque durable inks used in digital printed sign messages shall be as recommended by the manufacturer. When properly applied, digital printed colors shall have a warranty life of the base retroreflective sign sheeting. Digital applied colors shall present a smooth surface, free from foreign material, and all messages and borders shall be clear and sharp. Digital printed signs shall conform to 70% of the retroreflective minimum values established for its type and color. Digitally printed signs shall meet the daytime color and luminance, and nighttime color requirements of ASTM D 4956. No variations in color or overlapping of colors will be permitted. Digital printed permanent traffic signs shall have an integrated engineered match component clear protective overlay recommended by the sheeting manufacturer applied to the entire face of the sign. On Temporary construction/maintenance signs printed with black ink only, the protective overlay film is optional, as long as the finished sign has a warranty of a minimum of three years from sign sheeting manufacturer.

All digital printed traffic control signs shall be an integrated engineered match component system. The integrated engineered match component system shall consist of retroreflective sheeting, durable ink(s), and clear overlay film all from the same manufacturer applied to aluminum substrate conforming to Section 9-28.8.

The sign fabricator shall use an approved integrated engineered match component system as listed on the Qualified Products List (QPL). Each approved digital printer shall only use the compatible retroreflective sign sheeting manufacturer’s engineered match component system products.

Each retroreflective sign sheeting manufacturer/integrated engineered match component system listed on the QPL shall certify a department approved sign fabricator is approved to operate their compatible digital printer. The sign fabricator shall re-certify annually with the retroreflective sign manufacturer to ensure their digital printer is still meeting manufacturer’s specifications for traffic control signs. Documentation of each re-certification shall be submitted to the QPL Engineer annually.

9-28.11 Hardware

The last paragraph is revised to read:

All steel parts shall be galvanized in accordance with AASHTO M111. Steel bolts and related connecting hardware shall be galvanized in accordance with ASTM F 2329.

9-28.14(2) Steel Structures and Posts

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

Anchor rods for sign bridge and cantilever sign structure foundations shall conform to Section 9-06.5(4), including Supplemental Requirement S4 tested at -20°F.
In the second sentence of the fourth paragraph, “AASHTO M232” is revised to read “ASTM F 2329”.

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

Except as otherwise noted, steel used for sign structures and posts shall have a controlled silicon content of either 0.00 to 0.06 percent or 0.15 to 0.25 percent.

The last sentence of the last paragraph is revised to read:

If such modifications are contemplated, the Contractor shall submit a Type 2 Working Drawing of the proposed modifications.

9-29.AP9

Section 9-29, Illumination, Signal, Electrical

April 1, 2019

9-29.1 Conduit, Innerduct, and Outerduct

This section is supplemented with the following new subsections:

9-29.1(10) Pull Tape

Pull tape shall be pre-lubricated polyester pulling tape. The pull tape shall have a minimum width of ½-inch and a minimum tensile strength of 500 pounds. Pull tape may have measurement marks.

9-29.1(11) Foam Conduit Sealant

Foam conduit sealant shall be self-expanding waterproof foam designed to prevent both water and pest intrusion. The foam shall be designed for use in and around electrical equipment, including both insulated and bare conductors.

9-29.2(1) Junction Boxes

The first paragraph is revised to read:

For the purposes of this Specification concrete is defined as portland cement or blended hydraulic cement concrete and non-concrete is all others.

9-29.2(1)A2 Non-Concrete Junction Boxes

The first paragraph is revised to read:

Material for the non-concrete junction boxes shall be of a quality that will provide for a similar life expectancy as portland cement or blended hydraulic cement concrete in a direct burial application.

9-29.2(2)A Standard Duty Cable Vaults and Pull Boxes

In the table in the last paragraph, the fourth, fifth and sixth rows are revised to read:

<table>
<thead>
<tr>
<th>Slip Resistant Lid</th>
<th>ASTM A36 steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame</td>
<td>ASTM A36 steel</td>
</tr>
<tr>
<td>Slip Resistant Frame</td>
<td>ASTM A36 steel</td>
</tr>
</tbody>
</table>
9-29.3(2)A1 Single Conductor Current Carrying

This second sentence is revised to read:

Insulation shall be XLP (cross-linked polyethylene) or EPR (Ethylene Propylene Rubber), Type USE (Underground Service Entrance) or USE-2, and rated for 600-volts or higher.

9-29.6 Light and Signal Standards

In the first sentence of the third paragraph, “AASHTO M232” is revised to read “ASTM F 2329”.

Item number 2 of the last paragraph is revised to read:

2. The steel light and signal standard fabricator’s shop drawing submittal, including supporting design calculations, submitted as a Type 2E Working Drawing in accordance with Section 8-20.2(1) and the Special Provisions.

9-29.6(1) Steel Light and Signal Standards

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

Steel used for light and signal standards shall have a controlled silicon content of either 0.00 to 0.06 percent or 0.15 to 0.25 percent.

9-29.6(5) Foundation Hardware

In the last paragraph, "AASHTO M232" is revised to read “ASTM F 2329”.

9-29.10(1) Conventional Roadway Luminaires

This section is revised to read:

All conventional roadway luminaires shall meet 3G vibration requirements as described in ANSI C136.31.

All luminaires shall have housings fabricated from aluminum. The housing shall be painted flat gray, SAE AMS Standard 595 color chip No. 26280, unless otherwise specified in the Contract. Painted housings shall withstand a 1,000 hour salt spray test as specified in ASTM B117.

Each housing shall include a four bolt slip-fitter mount capable of accepting a nominal 2” tenon and adjustable within +/- 5 degrees of the axis of the tenon. The clamping bracket(s) and the cap screws shall not bottom out on the housing bosses when adjusted within the +/- 5 degree range. No part of the slipfitter mounting brackets on the luminaires shall develop a permanent set in excess of 0.2 inch when the cap screws used for mounting are tightened to a torque of 32 foot-pounds. Each luminaire shall include leveling reference points for both transverse and longitudinal adjustment.

All luminaires shall include shorting caps when shipped. The caps shall be removed and provided to the Contracting Agency when an alternate control device is required to be installed in the photocell socket. House side shields shall be included when required by the Contract. Order codes shall be modified to the minimum extent necessary to include the option for house side shields.
This section is supplemented with the following new subsections:

9-29.10(1)A High Pressure Sodium (HPS) Conventional Roadway Luminaires

HPS conventional roadway luminaires shall meet the following requirements:

1. General shape shall be “cobrahead” style, with flat glass lens and full cutoff optics.

2. Light pattern distribution shall be IES Type III.

3. The reflector of all luminaires shall be of a snap-in design or secured with screws. The reflector shall be polished aluminum or prismatic borosilicate glass.

4. Flat lenses shall be formed from heat resistant, high-impact, molded borosilicate or tempered glass.

5. The lens shall be mounted in a doorframe assembly, which shall be hinged to the luminaire and secured in the closed position to the luminaire by means of an automatic latch. The lens and doorframe assembly, when closed, shall exert pressure against a gasket seat. The lens shall not allow any light output above 90 degrees nadir. Gaskets shall be composed of material capable of withstanding the temperatures involved and shall be securely held in place.

6. The ballast shall be mounted on a separate exterior door, which shall be hinged to the luminaire and secured in the closed position to the luminaire housing by means of an automatic type of latch (a combination hex/slot stainless steel screw fastener may supplement the automatic-type latch).

7. Each luminaire shall be capable of accepting a 150, 200, 250, 310, or 400 watt lamp complete and associated ballast. Lamps shall mount horizontally.

9-29.10(1)B Light Emitting Diode (LED) Conventional Roadway Luminaires

LED Conventional Roadway Luminaires are divided into classes based on their equivalent High Pressure Sodium (HPS) luminaires. Current classes are 200W, 250W, 310W, and 400W. LED luminaires are required to be pre-approved in order to verify their photometric output. To be considered for pre-approval, LED luminaires must meet the requirements of this section.

LED luminaires shall include a removable access door, with tool-less entry, for access to electronic components and the terminal block. The access door shall be removable, but include positive retention such that it can hang freely without disconnecting from the luminaire housing. LED drivers may be mounted either to the interior of the luminaire housing or to the removable door itself.

LED drivers shall be removable for user replacement. All internal modular components shall be connected by means of mechanical plug and socket type quick disconnects. Wire nuts may not be used for any purpose. All external electrical connections to the luminaire shall be made through the terminal block.
LED luminaires shall include a 7-pin NEMA photocell receptacle. The LED driver(s) shall be dimmable from ten volts to zero volts. LED output shall have a Correlated Color Temperature (CCT) of 4000K nominal (4000-4300K) and a Color Rendering Index (CRI) of 70 or greater. LED output shall be a minimum of 85% at 75,000 hours at 25 degrees Celsius.

LED luminaires shall be available for 120V, 240V, and 480V supply voltages. Voltages refer to the supply voltages to the luminaires present in the field. LED power usage shall not exceed the following maximum values for the applicable wattage class:

<table>
<thead>
<tr>
<th>Class</th>
<th>Max. Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>200W</td>
<td>110W</td>
</tr>
<tr>
<td>250W</td>
<td>165W</td>
</tr>
<tr>
<td>310W</td>
<td>210W</td>
</tr>
<tr>
<td>400W</td>
<td>275W</td>
</tr>
</tbody>
</table>

Only one brand of LED conventional roadway luminaire may be used on a Contract. They do not necessarily have to be the same brand as any high-mast, underdeck, or wall-mount luminaires when those types of luminaires are specified in the Contract. LED luminaires shall include a standard 10 year manufacturer warranty.


9-29.10(2) Decorative Luminaires
This section, including title, is revised to read:

9-29.10(2) Vacant

9-29.12 Electrical Splice Materials
This section is supplemented with the following new subsections:

9-29.12(3) Splice Enclosures
9-29.12(3)A Heat Shrink Splice Enclosure
Heat shrink splice enclosures shall be medium or heavy wall cross-linked polyolefin, meeting the requirements of AMS-DTL-23053/15, with thermoplastic adhesive sealant. Heat shrink splices used for “wye” connections require rubber electrical mastic tape.

9-29.12(3)B Molded Splice Enclosure
Molded splice enclosures shall use epoxy resin in a clear rigid plastic mold. The material used shall be compatible with the insulation material of the insulated conductor or cable. The component materials of the resin insulation shall be packaged ready for convenient mixing without removing from the package.

9-29.12(4) Re-Enterable Splice Enclosure
Re-enterable splice enclosures shall use either dielectric grease or a flexible resin contained in a two-piece plastic mold. The mold shall either snap together or use stainless steel hose clamps.
9-29.12(5) Vinyl Electrical Tape for Splices
Vinyl electrical tape in splicing applications shall meet the requirements of MIL-I-24391C.

9-29.12(1) Illumination Circuit Splices
This section is revised to read:

- Underground illumination circuit splices shall be solderless crimped connections capable of securely joining the wires, both mechanically and electrically, as defined in Section 8-20.3(8). Aerial illumination splices shall be solderless crimp connectors or split bolt vice-type connectors.

9-29.12(1A) Heat Shrink Splice Enclosure
This section is deleted in its entirety.

9-29.12(1B) Molded Splice Enclosure
This section is deleted in its entirety.

9-29.12(2) Traffic Signal Splice Material
This section is revised to read:

- Induction loop splices and magnetometer splices shall use an uninsulated barrel-type crimped connector capable of being soldered.

9-29.13(10D) Cabinets for Type 170E and 2070 Controllers
The first sentence of item number 4 is revised to read:

- A disposable paper filter element with dimensions of 12” × 16” × 1” shall be provided in lieu of a metal filter.

Item number 6 is revised to read:

6. LED light strips shall be provided for cabinet lighting, powered from the Equipment breaker on the Power Distribution Assembly. Each LED light strip shall be approximately 12 inches long, have a minimum output of 320 lumens, and have a color temperature of 4100K (cool white) or higher. There shall be three light strips for each rack within the cabinet. Lighting shall be ceiling mounted – rack mounted lighting is not permitted. Light strips shall be installed in the locations shown in the Standard Plans. Lighting shall not interfere with the proper operation of any other ceiling mounted equipment. All lighting fixtures above a rack shall energize automatically when either door to that respective rack is opened. Each door switch shall be labeled “Light”.

Item number 7 is revised to read:

7. Rack mounted equipment shall be as shown in the Standard Plans. The cabinet shall use PDA #2LX and Output File #1LX. Where an Auxiliary Output File is required, Output File #2LX shall also be included.

This section is supplemented with the following new item:
9. The PCB connectors for Field Terminal Blocks FT1 through FT6 on Output Files #1LX and #2LX shall be capable of accepting minimum 14 AWG field wiring, have a pitch of 5.08 mm, and use screw flange type locking to secure the plug and socket connection. The sockets on the Field Terminal Panel shall be secured to the panel such that unplugging a connector will not result in the socket moving or separating from the panel.

9-29.13(11) Traffic Data Accumulator and Ramp Meters

Item number 2 is revised to read:

2. Rack mounted equipment shall be as shown in the Standard Plans.

Item number 3 is revised to read:

3. PDA #3LX shall be furnished with three Model 200 Load Switches installed. PDA #3LX shall be modified to include a second Model 430 transfer relay, mounted on the rear of the PDA and wired as shown in the Standard Plans.

9-29.13(12) ITS Cabinet

This section’s title is revised to read:

Type 331L ITS Cabinet

The first paragraph (excluding the numbered list) is revised to read:

Basic ITS cabinets shall be Model 331L Cabinets, unless otherwise specified in the Contract. Type 331L Cabinets shall be constructed in accordance with the TEES, with the following modifications:

Item number 6 of the first paragraph is revised to read:

6. LED light strips shall be provided for cabinet lighting, powered from the Equipment breaker on the Power Distribution Assembly. Each LED light strip shall be approximately 12 inches long, have a minimum output of 320 lumens, and have a color temperature of 4100K (cool white) or higher. There shall be three light strips for each rack within the cabinet. Lighting shall be ceiling mounted – rack mounted lighting is not permitted. Light strips shall be installed in the locations shown in the Standard Plans. Lighting shall not interfere with the proper operation of any other ceiling mounted equipment. All lighting fixtures above a rack shall energize automatically when either door to that respective rack is opened. Each door switch shall be labeled “Light”.

9-29.16(2)E Painting Signal Heads

In the first sentence, “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

9-29.17 Signal Head Mounting Brackets and Fittings

In the first paragraph, item number 2 under Stainless Steel is revised to read:

2. Bands or cables for Type N mount.
9-29.20 Pedestrian Signals
In item 2C of the second paragraph, “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

9-29.24 Service Cabinets
The third sentence of item number 6 is revised to read:

The dead front cover shall have cutouts for the entire breaker array, with blank covers where no circuit breakers are installed.

9-29.24(2) Electrical Circuit Breakers and Contactors
This section is revised to read:

All circuit breakers shall be bolt-on type, with the RMS-symmetrical interrupting capacity described in this Section. Circuit breakers for 120/240/277 volt circuits shall be rated at 240 or 277 volts, as applicable, with an interrupting capacity of not less than 10,000 amperes. Circuit breakers for 480 volt circuits shall be rated at 480 volts, and shall have an interrupting capacity of not less than 14,000 amperes.

Lighting contactors shall meet the requirements of Section 9-29.24(2).

9-33.4(1) Geosynthetic Material Approval
The second sentence of the first paragraph is revised to read:

If the geosynthetics material is not listed in the current WSDOT QPL, a Manufacturer’s Certificate of Compliance including Certified Test Reports of each proposed geosynthetic shall be submitted to the State Materials Laboratory in Tumwater for evaluation.

The last paragraph is revised to read:

Geosynthetics used as reinforcement in permanent geosynthetic retaining walls, reinforced slopes, reinforced embankments, and other geosynthetic reinforcement applications require proof of compliance with the National Transportation Product...
Evaluation Program (NTPEP) in accordance with AASHTO Standard Practice R 69,
Standard Practice for Determination of Long-Term Strength for Geosynthetic
Reinforcement.

9-34.AP9
Section 9-34, Pavement Marking Material
January 7, 2019

9-34.2(2) Color
The first sentence is revised to read:

Paint draw-downs shall be prepared according to ASTM D823.

Each reference to “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

9-34.2(3) Prohibited Materials
This section is revised to read:

Traffic paint shall not contain mercury, lead, chromium, diarylide pigments, toluene, chlorinated solvents, hydrolysable chlorine derivatives, ethylene-based glycol ethers and their acetates, nor any other EPA hazardous waste material over the regulatory levels in accordance with CFR 40 Part 261.24.

9-34.2(5) Low VOC Waterborne Paint
The heading “Standard Waterborne Paint” is supplemented with “Type 1 and 2”.
The heading “High-Build Waterborne Paint” is supplemented with “Type 4”.
The heading “Cold Weather Waterborne Paint” is supplemented with “Type 5”.

In the row beginning with “° @90°F”, each minimum value is revised to read “60”.
In the row beginning with “Fineness of Grind, (Hegman Scale)”, each minimum value is revised to read “3”.
The last four rows are replaced with the following:

<table>
<thead>
<tr>
<th>Vehicle Composition</th>
<th>ASTM D 2621</th>
<th>100% acrylic emulsion</th>
<th>100% cross-linking acrylic</th>
<th>100% acrylic emulsion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeze-Thaw Stability, KU</td>
<td>ASTM D 2243 and D 562</td>
<td>@ 5 cycles show no coagulation or change in viscosity greater than ± 10 KU</td>
<td>@ 5 cycles show no coagulation or change in viscosity greater than ± 10 KU</td>
<td>@ 3 cycles show no coagulation or change in viscosity greater than ± 10 KU</td>
</tr>
<tr>
<td>Heat Stability</td>
<td>ASTM D 562</td>
<td>± 10 KU from the initial viscosity</td>
<td>± 10 KU from the initial viscosity</td>
<td>± 10 KU from the initial viscosity</td>
</tr>
<tr>
<td>Low Temperature Film Formation</td>
<td>ASTM D 2805</td>
<td>No Cracks*</td>
<td>No Cracks</td>
<td>No Cracks</td>
</tr>
<tr>
<td>Cold Flexibility</td>
<td>ASTM D522</td>
<td>Pass at 0.5 in mandrel*</td>
<td>Pass at 0.5 in mandrel*</td>
<td>Pass at 0.5 in mandrel*</td>
</tr>
<tr>
<td>Test Deck Durability</td>
<td>ASTM D913</td>
<td>≥70% paint retention in wheel track*</td>
<td>≥70% paint retention in wheel track*</td>
<td>≥70% paint retention in wheel track*</td>
</tr>
<tr>
<td>Mud Cracking</td>
<td>(See note 7)</td>
<td>No Cracks</td>
<td>No Cracks</td>
<td>No Cracks</td>
</tr>
</tbody>
</table>
After the preceding Amendments are applied, the following new column is inserted after the “Standard Waterborne Paint Type 1 and 2” column:

<table>
<thead>
<tr>
<th>Semi-Durable Waterborne Paint Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
</tr>
<tr>
<td>Min.</td>
</tr>
<tr>
<td>Within ± 0.3 of qualification sample</td>
</tr>
<tr>
<td>80</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>77</td>
</tr>
<tr>
<td>65</td>
</tr>
<tr>
<td>43</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>88</td>
</tr>
<tr>
<td>9.5</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

100% acrylic emulsion
@ 5 cycles show no coagulation or change in viscosity greater than ± 10 KU
± 10 KU from the initial viscosity
No Cracks
Pass at 0.25 in mandrel
≥70% paint retention in wheel track
No Cracks

The footnotes are supplemented with the following:

4 Cross-linking acrylic shall meet the requirements of federal specification TT-P-1952F Section 3.1.1.

5 Cold Flexibility: The paint shall be applied to an aluminum panel at a wet film thickness of 15 mils and allowed to dry under ambient conditions (50±10% RH and 72±5 °F) for 24 hours. A cylindrical mandrel apparatus (in accordance with ASTM D522 method B) shall be put in a 40°F refrigerator when the paint is drawn down. After 24 hours, the aluminum panel with dry paint shall be put in the 40°F refrigerator with the mandrel apparatus for 2 hours. After 2 hours, the panel and test apparatus shall be removed and immediately tested to according to ASTM D522 to evaluate cold flexibility. Paint must show no evidence of cracking, chipping or flaking when bent 180 degrees over a mandrel bar of specified diameter.

6 NTPEP test deck, or a test deck conforming to ASTM D713, shall be conducted for a minimum of six months with the following additional requirements: it shall be applied at 15 wet mils to a test deck that is located at 40N latitude or higher with at least 10,000 ADT and which was applied during the months of September through November.

7 Paint is applied to an approximately 4”x12” aluminum panel using a drawdown bar with a 50 mil gap. The coated panel is allowed to dry under ambient conditions (50±10% RH and 72±5 °F) for 24 hours. Visual evaluation of the dry film shall reveal no cracks.
9-34.3 Plastic
In the first sentence of the last paragraph, “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

9-34.3(2) Type B – Pre-Formed Fused Thermoplastic
In the last two paragraphs, each reference to “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

9-34.3(4) Type D – Liquid Cold Applied Methyl Methacrylate
The Test Method value for Adhesion to PCC or HMA, psi is revised to read “ASTM D4541”.

9-34.4 Glass Beads for Pavement Marking Materials
In the Test Method column of the table titled Metal Concentration Limits, “EPA 3052 SW-6010C” is revised to read “EPA 3052 SW-846 6010D”.

9-34.5(1) Temporary Pavement Marking Tape – Short Duration
This section, including title, is revised to read:

9-34.5(1) Temporary Pavement Marking Tape – Short Duration (Removable)
Temporary pavement marking tape for short duration (usage is for up to two months) shall conform to ASTM D4592 Type I except that black tape, black mask tape and the black portion of the contrast removable tape, shall be non-reflective.

9-34.5(2) Temporary Pavement Marking Tape – Long Duration
This section’s title is revised to read:

Temporary Pavement Marking Tape – Long Duration (Non-Removable)
The first sentence is revised to read:
Temporary pavement marking tape for long duration (usage is for greater than two months and less than one year) shall conform to ASTM D4592 Type II.

ASTM E2176 is deleted from the second sentence.

9-34.7(1) Requirements
The first paragraph is revised to read:

Field performance evaluation is required for low VOC solvent-based paint per Section 9-34.2(4), Type A – liquid hot applied thermoplastic per Section 9-34.3(1), Type B – preformed fused thermoplastic per Section 9-34.3(2), Type C – cold applied preformed tape per Section 9-34.3(3), and Type D – liquid applied methyl methacrylate per Section 9-34.3(4).

The last paragraph is deleted.

9-34.7(1)C Auto No-Track Time
The first paragraph is revised to read:
Auto No-Track Time will only be required for low VOC solvent-based paint in accordance with Section 9-34.2(4).

The second and third sentences of the second paragraph are deleted.
# TABLE OF CONTENTS - SPECIAL PROVISIONS

## DIVISION 1 - GENERAL REQUIREMENTS

- DESCRIPTION OF WORK....................................................................................... 8
- 1-01 DEFINITIONS AND TERMS ........................................................................... 8
- 1-02 BID PROCEDURES AND CONDITIONS ..................................................... 9
  - 1-02.1 Prequalification of Bidders ...................................................................... 9
  - 1-02.2 Qualifications of Bidder ........................................................................ 10
  - 1-02.3 Plans and Specifications ........................................................................ 11
  - 1-02.5 Proposal Forms .................................................................................... 11
  - 1-02.7 Bid Deposit ........................................................................................... 12
  - 1-02.8 Noncollusion Declaration and Lobbying Certification ....................... 13
  - 1-02.13 Irregular Proposals ............................................................................. 14
  - 1-02.15 Pre Award Information ........................................................................ 17
- 1-03 AWARD AND EXECUTION OF CONTRACT ............................................... 18
  - 1-03.1 Consideration of Bids ........................................................................... 18
  - 1-03.3 Execution of Contract ........................................................................... 18
  - 1-03.7 Judicial Review .................................................................................... 19
- 1-04 SCOPE OF THE WORK .............................................................................. 19
  - 1-04.1 Intent of the Contract ........................................................................... 19
  - 1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda ................................................................. 20
  - 1-04.6 Variation in Estimated Quantities ......................................................... 20
  - 1-04.11 Final Cleanup ..................................................................................... 20
- 1-05 CONTROL OF WORK .............................................................................. 21
  - 1-05.4 Conformity with and Deviations from Plans and Stakes .................... 21
  - 1-05.7 Removal of Defective and Unauthorized Work .................................. 23
  - 1-05.9 Equipment .......................................................................................... 24
  - 1-05.10 Guarantees ....................................................................................... 24
  - 1-05.11 Final Inspection ................................................................................ 24
  - 1-05.11 Final Inspections and Operational Testing ........................................ 25
  - 1-05.12 Final Acceptance .............................................................................. 25
  - 1-05.13 Superintendents, Labor and Equipment of Contractor .................... 26
  - 1-05.15 Method of Serving Notices ................................................................. 26
  - 1-05.16 Water and Power .............................................................................. 27
- 1-06 CONTROL OF MATERIAL ...................................................................... 27
  - 1-06.1 Approval of Materials Prior to Use ....................................................... 27
  - 1-06.6 Recycled Materials ............................................................................. 27
- 1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC .......... 27
  - 1-07.1 Laws to Be Observed .......................................................................... 27
  - 1-07.2 State Taxes ......................................................................................... 29
  - 1-07.2 State Sales Tax ................................................................................... 29
<table>
<thead>
<tr>
<th>Division</th>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-08</td>
<td>PROSECUTION AND PROGRESS</td>
<td>47</td>
</tr>
<tr>
<td>1-08.0</td>
<td>Preliminary Matters</td>
<td>47</td>
</tr>
<tr>
<td>1-08.1</td>
<td>Subcontracting</td>
<td>49</td>
</tr>
<tr>
<td>1-08.3</td>
<td>Progress Schedule</td>
<td>50</td>
</tr>
<tr>
<td>1-08.4</td>
<td>Prosecution of Work</td>
<td>50</td>
</tr>
<tr>
<td>1-08.9</td>
<td>Liquidated Damages</td>
<td>52</td>
</tr>
<tr>
<td>1-09</td>
<td>MEASUREMENT AND PAYMENT</td>
<td>53</td>
</tr>
<tr>
<td>1-09.2</td>
<td>Weighing Equipment</td>
<td>53</td>
</tr>
<tr>
<td>1-09.6</td>
<td>Force Account</td>
<td>53</td>
</tr>
<tr>
<td>1-09.9</td>
<td>Payments</td>
<td>53</td>
</tr>
<tr>
<td>1-09.9</td>
<td>Payments</td>
<td>54</td>
</tr>
<tr>
<td>1-09.13</td>
<td>Claims Resolution</td>
<td>55</td>
</tr>
<tr>
<td>1-10</td>
<td>TEMPORARY TRAFFIC CONTROL</td>
<td>55</td>
</tr>
<tr>
<td>1-10.2</td>
<td>Traffic Control Management</td>
<td>55</td>
</tr>
<tr>
<td>1-10.4</td>
<td>Measurement</td>
<td>56</td>
</tr>
<tr>
<td>1-10.5</td>
<td>Payment</td>
<td>57</td>
</tr>
<tr>
<td>2-01</td>
<td>CLEARING, GRUBBING, AND ROADSIDE CLEANUP</td>
<td>58</td>
</tr>
<tr>
<td>2-01.1</td>
<td>Description</td>
<td>58</td>
</tr>
<tr>
<td>2-01.2</td>
<td>Disposal of Usable Material and Debris</td>
<td>58</td>
</tr>
<tr>
<td>2-01.3</td>
<td>Construction Requirements</td>
<td>58</td>
</tr>
<tr>
<td>2-01.4</td>
<td>Measurement</td>
<td>58</td>
</tr>
<tr>
<td>2-01.5</td>
<td>Payment</td>
<td>58</td>
</tr>
<tr>
<td>2-02</td>
<td>REMOVAL OF STRUCTURES AND OBSTRUCTIONS</td>
<td>59</td>
</tr>
<tr>
<td>2-02.1</td>
<td>Description</td>
<td>59</td>
</tr>
<tr>
<td>2-02.3</td>
<td>Construction Requirements</td>
<td>59</td>
</tr>
<tr>
<td>2-02.4</td>
<td>Measurement</td>
<td>60</td>
</tr>
<tr>
<td>2-02.5</td>
<td>Payment</td>
<td>61</td>
</tr>
<tr>
<td>4-04</td>
<td>BALLAST AND CRUSHED SURFACING</td>
<td>62</td>
</tr>
<tr>
<td>4-04.1</td>
<td>Description</td>
<td>62</td>
</tr>
<tr>
<td>4-04.5</td>
<td>Payment</td>
<td>62</td>
</tr>
<tr>
<td>5-04.1</td>
<td>Description</td>
<td>63</td>
</tr>
<tr>
<td>5-04.2</td>
<td>Materials</td>
<td>63</td>
</tr>
<tr>
<td>5-04.3</td>
<td>Construction Requirements</td>
<td>65</td>
</tr>
<tr>
<td>5-04.4</td>
<td>Measurement</td>
<td>86</td>
</tr>
<tr>
<td>5-04.5</td>
<td>Payment</td>
<td>87</td>
</tr>
<tr>
<td>5-04.6</td>
<td>Asphalt Cost Price Adjustment</td>
<td>90</td>
</tr>
<tr>
<td>7-05</td>
<td>MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS</td>
<td>91</td>
</tr>
<tr>
<td>7-05.3</td>
<td>Construction Requirements</td>
<td>91</td>
</tr>
<tr>
<td>7-05.4</td>
<td>Measurement</td>
<td>91</td>
</tr>
<tr>
<td>7-05.5</td>
<td>Payment</td>
<td>91</td>
</tr>
<tr>
<td>7-07</td>
<td>CLEANING EXISTING DRAINAGE STRUCTURES</td>
<td>92</td>
</tr>
<tr>
<td>7-07.3</td>
<td>Construction Requirements</td>
<td>92</td>
</tr>
<tr>
<td>7-07.5</td>
<td>Payment</td>
<td>92</td>
</tr>
<tr>
<td>7-12</td>
<td>VALVES FOR WATER MAINS</td>
<td>92</td>
</tr>
<tr>
<td>7-12.3</td>
<td>Construction Requirements</td>
<td>92</td>
</tr>
</tbody>
</table>
City of Kirkland Special Provisions

INTRODUCTION

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, 2018 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter “Standard Specifications”). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.


The accompanying Plans and these Specifications and any Addenda thereto, show and describe the location and type of work to be performed under the 2019 Street Overlay Project.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The titles of headings of the Sections and subsections herein are intended for convenience or reference and shall not be considered as having any bearing on their interpretation.

Several types of Special Provisions are included in this contract and are differentiated as follows:

General Special Provisions (GSPs) are similar to Standard Specifications in that they typically apply to many projects and are used by agencies throughout the state. Denoted as: (date)

Northwest Region General Special Provisions (GSPs) are similar to Standard Specifications in that they typically apply to many projects and are used by agencies in the northwest region of the state. Denoted as: (NWR date)

Local Agency Approved GSPs are modifications to the standard specifications prepared by the APWA Division 1 subcommittee, which is comprised of representatives of local agencies throughout the state. APWA GSPs replace what was formerly referred to as "Division 1-99 APWA Supplement" in previous editions of the Standard Specifications for Road, Bridge and Municipal Construction. Denoted as: (date APWA GSP)

City of Kirkland GSPs are commonly applicable to City of Kirkland projects. Denoted as: (date COK GSP)

Project Specific Special Provisions normally appear only in the contract for which they were developed. Denoted as: (******)

Also incorporated into the Contract Documents by reference are:

- Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted edition, with Washington State modifications, if any
- Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA, current edition
- City of Kirkland Public Works Department Pre-Approved Plans and Policies.

Contractor shall obtain copies of these publications, at Contractor’s own expense.
DIVISION 1 - GENERAL REQUIREMENTS

DESCRIPTION OF WORK

This contract provides for the preparation and resurfacing of asphalt concrete roadway, pavement repair, replacement of damaged cement concrete curb, gutter, driveway and sidewalks, installation of ADA sidewalk ramps, pavement markings, traffic signal loops and video detection, traffic control and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

1-01 DEFINITIONS AND TERMS

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

Dates

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

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

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

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

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

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

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

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

Supplement this Section with the following:

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

Special Provisions -8
All references to the terms “State” or “state” shall be revised to read “Contracting Agency” unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.

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

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

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

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

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

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

**Contract Documents**
See definition for “Contract”.

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

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

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

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

1-02 BID PROCEDURES AND CONDITIONS

*(January 24, 2011 APWA GSP)*

1-02.1 Prequalification of Bidders
Delete this Section and replace it with the following:
1-02.1 Qualifications of Bidder

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

(1/1/2016 COK GSP)
1-02.1(1) Supplemental Qualifications Criteria

Add the following new section:

In addition, the Contracting Agency has established Contracting Agency-specific and/or project-specific supplemental criteria, in accordance with RCW 39.04.350(2), for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in the section below.

Bidders shall complete and sign the Statement of Bidder's Qualification contained in the Proposal. Said form must be submitted with the bid proposal.

After bids are opened, Contracting Agency may request that a bidder or all bidders provide supplemental information concerning responsibility in accordance with RCW 39.04.350(2). Such supplemental information shall be provided to Contracting Agency in writing within two (2) business days of the request. Whether bidder supplies this supplemental information within the time and manner specified or not, in addition to consideration of this additional information, Contracting Agency may also base its determination of responsibility on any available information related to the supplemental criteria.

If Contracting Agency determines that a bidder is not responsible, Contracting Agency will provide, in writing, the reasons for such determination at which point the contractor will be deemed disqualified in accordance with WSDOT Standard Specification 1-02.14(10) and the proposal rejected. The bidder may appeal the determination within two (2) business days after receipt of the determination by presenting additional information to Contracting Agency. Contracting Agency will consider the additional information before issuing its final decision. If Contracting Agency's final decision affirms that the bidder is not responsible, Contracting Agency will not execute a contract with any other bidder until two (2) business days after the bidder determined to be not responsible has received Contracting Agency's final determination. The failure or omission of a bidder to receive or examine any form, instrument, addendum or other document shall in no way relieve any bidder from obligations with respect to the bid or to the contract.

Any bidder may, within five (5) business days before the bid submittal deadline, request that Contracting Agency modify the supplemental criteria. Contracting Agency will evaluate the information submitted by the bidder and respond before the submittal deadline. If the evaluation results in a change of the criteria, the Contracting Agency will issue an Addendum to the bidding documents identifying the new criteria.

Supplemental Criteria. Contracting Agency acknowledges that Change Orders (changes, extra work, requests for equitable adjustment and claims (defined as including demands for money or time in excess of the contract amount or contract time)) are ubiquitous on public works construction projects. The expeditious resolution of Change Orders is critical to the on budget and on time successful completion of a public works project. Thus, the City has established the following relevant supplemental bidder responsibility criteria applicable for the project:

1. Criterion. The bidder must demonstrate a record of successful and timely resolution of Change Orders including compliance with public contract Change Order resolution procedures (e.g. timely notice of event giving rise to the Change Order, timely submission of a statement of the cost and/or impact of the Change Order unless the bidder is able to show extenuating circumstances that explain bidder’s failure to timely provide such information to the satisfaction of Contracting Agency.
2. Documentation. As evidence that the bidder meets the supplemental responsibility criteria, after bids are opened and within two (2) business days of the public notice of Contracting Agency’s tabulation of bids, the lowest responsive bidder must submit the following documentation of public works projects completed within the previous three (3) years and include for each project the following:

a. The Owner and contact information for the Owner;

b. A listing of Change Orders and a signed statement from the bidder that the project timelines concerning resolution of Change Orders was complied with, and if not, provide a written explanation of what the bidder believes to be the extenuating circumstances excusing compliance with the Contract Change Order notice and claim provisions.

Contracting Agency may contact owners listed by the bidders to validate the information provided by a bidder.

(June 27, 2011 APWA GSP)

1-02.2 Plans and Specifications

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Call for Bids (Advertisement Invitation for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

<table>
<thead>
<tr>
<th>To Prime Contractor</th>
<th>No. of Sets</th>
<th>Basis of Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced plans (11” x 17”)</td>
<td>3</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Contract Provisions</td>
<td>3</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Large plans (e.g., 22” x 34”)</td>
<td>0</td>
<td>Furnished only upon request.</td>
</tr>
</tbody>
</table>

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor’s own expense.

(August 15, 2016 APWA GSP Option A)

1-02.4(1) General

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

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents, must request the explanation or interpretation in writing soon enough to allow a written reply to reach all prospective Bidders before the submission of their Bids.

(July 31, 2017 APWA GSP)

1-02.5 Proposal Forms

Delete this section and replace it with the following:

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

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

(July 11, 2018 APWA GSP)
1-02.6 Preparation of Proposal

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.

5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

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

If no Subcontractor is listed, the Bidder acknowledges that it does not intend to use any Subcontractor to perform those items of work.

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

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

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

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

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

(March 8, 2013 APWA GSP)
1-02.7 Bid Deposit

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
5. Signature of the bidder’s officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;

6. The signature of the surety’s officer empowered to sign the bond and the power of attorney.

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

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

(1/1/2016 COK GSP)

1-02.8 Noncollusion Declaration and Lobbying Certification

The following new paragraph is inserted at the end of Section 1-02.8:

Conflict of Interest

The bidder affirms that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this contract, no person having any conflicting interest shall be employed. Any interest on the part of the Contractor or its employees must be disclosed forthwith to the City of Kirkland. If this contract is within the scope of a Federal Housing and Community Development Block Grant program, the Contractor further covenants that no person who presently exercises any functions or responsibilities in connection with the block grant program has any personal financial interest, direct or indirect, in this contract.

(May 17, 2018 APWA GSP, Option A)

1-02.9 Delivery of Proposal

Delete this section and replace it with the following:

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

To be considered responsive on a FHWA-funded project, the Bidder may be required to submit the following items, as required by Section 1-02.6:

- UDBE Written Confirmation Document from each UDBE firm listed on the Bidder’s completed UDBE Utilization Certification (WSDOT 272-056U)
- Good Faith Effort (GFE) Documentation

These documents, if applicable, shall be received either with the Bid Proposal or as a supplement to the Bid. These documents shall be received no later than 24 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Bid Proposal.

If submitted after the Bid Proposal is due, the document(s) must be submitted in a sealed envelope labeled the same as for the Proposal, with “Supplemental Information” added. All other information required to be submitted with the Bid Proposal must be submitted with the Bid Proposal itself, at the time stated in the Call for Bids.

The Contracting Agency will not open or consider any Bid Proposal that is received after the time specified in the Call Invitation for Bids for receipt of Bid Proposals, or received in a location other than that specified in the Call Invitation for Bids. The Contracting Agency will not open or consider any “Supplemental Information” (UDBE confirmations, or GFE documentation) that is received after
the time specified above, or received in a location other than that specified in the Call Invitation for Bids.

(July 23, 2015 APWA GSP)
1-02.10 Withdrawing, Revising, or Supplementing Proposal

Delete this section, and replace it with the following:

After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder’s request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

(June 20, 2017 APWA GSP)
1-02.13 Irregular Proposals

Delete this section and replace it with the following:

1. A proposal will be considered irregular and will be rejected if:
   a. The Bidder is not prequalified when so required;
   b. The authorized proposal form furnished by the Contracting Agency is not used or is altered;
   c. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
   d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
   e. A price per unit cannot be determined from the Bid Proposal;
   f. The Proposal form is not properly executed;
   g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
   h. The Bidder fails to submit or properly complete an Underutilized Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
   i. The Bidder fails to submit written confirmation from each UDBE firm listed on the Bidder’s completed UDBE Utilization Certification that they are in agreement with the bidder’s UDBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
   j. The Bidder fails to submit UDBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
l. More than one Proposal is submitted for the same project from a Bidder under the same or different names.

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

(May 17, 2018 APWA GSP, Option B)
1-02.14 Disqualification of Bidders
Delete this section and replace it with the following:

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

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

1. **Delinquent State Taxes**
   
   **A. Criterion:** The Bidder shall not owe delinquent taxes to the Washington State Department of Revenue without a payment plan approved by the Department of Revenue.
   
   **B. Documentation:** The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder does not owe delinquent taxes to the Washington State Department of Revenue, or if delinquent taxes are owed to the Washington State Department of Revenue, the Bidder must submit a written payment plan approved by the Department of Revenue, to the Contracting Agency by the deadline listed below.

2. **Federal Debarment**
   
   **A. Criterion:** The Bidder shall not currently be debarred or suspended by the Federal government.
   
   **B. Documentation:** The Bidder shall not be listed as having an “active exclusion” on the U.S. government’s “System for Award Management” database (www.sam.gov).

3. **Subcontractor Responsibility**
   
   **A. Criterion:** The Bidder’s standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder’s subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also “responsible” subcontractors as defined by RCW 39.06.020.
B. **Documentation**: The Bidder, if and when required as detailed below, shall submit a copy of its standard subcontract form for review by the Contracting Agency, and a written description of its procedure for validating the responsibility of subcontractors with which it contracts.

4. **Claims Against Retainage and Bonds**

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

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

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

5. **Public Bidding Crime**

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

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

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

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

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

7. **Lawsuits**

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

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

The basis for evaluation of Bidder compliance with these mandatory and supplemental criteria shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

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

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

**(August 14, 2013 APWA GSP)**

1-02.15 Pre Award Information

Revise this section to read:

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

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

1-03 AWARD AND EXECUTION OF CONTRACT

(January 23, 2006 APWA GSP)
1-03.1 Consideration of Bids

Revise the first paragraph to read:

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

(October 1, 2005 APWA GSP)
1-03.3 Execution of Contract

Revise this section to read:

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

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

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

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

(1/1/2016 COK GSP)
1-03.4 Contract Bond

Revise the first paragraph to read:
The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. Separate payment and performance bonds are required and each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
   a. Is registered with the Washington State Insurance Commissioner, and
   b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner, and
   c. Have an A.M. best rating of A:VII or better.
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
   a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
   b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety’s officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

(November 30, 2018 APWA GSP)
1-03.7 Judicial Review

Revise this section to read:

Any decision made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

1-04 SCOPE OF THE WORK

(1/1/2016 COK GSP)
1-04.1 Intent of the Contract

Section 1-04.1 is supplemented with the following:

All materials, tools, labor, and guarantees thereof of required to complete the work shall be furnished and supplied in accordance with the Plans, these Special Provisions, the Standard Specifications, and City of Kirkland Pre-Approved (Standard) Plans. The Contractor shall include all costs of doing this work within the contract bid item prices.
1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

Revise the second paragraph to read:

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

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

1-04.6 Variation in Estimated Quantities

Supplement this Section with the following:

The quantities for “Flaggers and Spotters”, “Other Traffic Control Labor – Off Duty Police”, “Pavement Repair Excavation Including Haul” “HMA for Pavement Repair”, and “CSBC for Pavement Repair” have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity. These bid items shall not be subject to the provisions of 1-04.6 of the Standard Specifications.

1-04.11 Final Cleanup

Section 1-04.11 is deleted in its entirety and replaced with the following:

From time to time or as may be ordered by the Engineer, the Contractor shall cleanup and remove debris, refuse, and discarded materials of any kind resulting from the Work. Failure to do so may result in cleanup done by the Owner and the cost thereof charged to the Contractor and deducted from the Contractor’s progress estimate.

The Contractor shall perform final cleanup as provided in this Section. The Engineer will not establish the Physical Completion Date until this is done. All public and private property the Contractor occupied to do the Work, including but not limited to the Street Right of Way, material sites, borrow and waste sites, and construction staging area shall be left neat and presentable. Immediately after completion of the Work, the Contractor shall cleanup and remove all refuse and unused materials of any kind resulting from the Work. Failure to do the final cleanup may result in the final cleanup being done by the Owner and the cost thereof charged to the Contractor and deducted from the Contractor’s final progress estimate.

The Contractor shall:

1. Remove all rubbish, surplus materials, discarded materials, falsework, piling, camp buildings, temporary structures, equipment, and debris;
2. Remove from the Project, all unneeded, oversized rock left from grading, surfacing, or paving unless the Contract specifies otherwise or the Engineer approves otherwise;
3. On all concrete and asphalt pavement work, flush the pavement clean and remove the wash water and debris;
4. Sweep and flush structure decks and remove wash water and debris;
5. Clean out from all open culverts and drains, inlets, catch basins, manholes and water main valve chambers, within the limits of the Project Site, all dirt and debris of any kind that is the result of the Contractor's operations;
6. Level and fine grade all excavated material not used for backfill where the Contract requires;
7. Fine grade all slopes;
8. Upon completion of grading and cleanup operations at any privately-owned site for which a written agreement between the Contractor and property owner is required, the Contractor shall obtain and furnish to the Engineer a written release from all damages, duly executed by the property owner, stating that the restoration of the property has been satisfactorily accomplished;

All costs associated with cleanup shall be incidental to the Work and shall be included in the various Bid items in the Bid, and shall be at no additional cost to the Owner.

1-05 CONTROL OF WORK

1-05.4 Conformity with and Deviations from Plans and Stakes

Add the following two new sub-sections:

(1/1/2016 COK GSP)
1-05.4(1) Roadway and Utility Surveys

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the improvements under this contract. Except for the survey control data furnished by the Owner, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

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

To facilitate the establishment of lines and elevations, the Owner will provide the Contractor with primary survey control information consisting of descriptions of two primary control points used for the horizontal and vertical control. Primary control points will be described and shown on the right-of-way Plans. The Contractor shall check all control points for horizontal and vertical locations prior to use and report any discrepancy to the Engineer. Errors resulting from using control points which have not been verified, shall be the Contractor's responsibility.

At a minimum the Contractor shall provide following survey staking shall be required:

1. Construction centerline or an offset to construction centerline shall be staked at all angle points and 100-foot intervals on tangents.
2. Offset stakes of JUT Centerline at all angle points and at 50-foot intervals on tangents
   a. Cut/fill shall reference the elevations of the lowest conduit.
   b. Offset shall reference the location of the center of trench and list the width of the trench section.
3. Offset stakes of all structure control/location points shown on the undergrounding Plans.
   a. Each vault, handhold, and junction box shall have a sets of off-set points provided each location point shown in the location tables Cut/Fill shall reference elevations of the finish grade of the top lid of the structure.
   b. Each pole riser and stub up, shall have at least one set of off-set hubs provided with cut/fills to finish ground elevations.
c. Finish grade elevations of all structures shall be determined by the Contractor based on the typical sections and details provide on the Contract Drawings.

4. Offset stakes at face or walls.
5. Offset staking of all drainage structures and drainage pipes at 50-foot intervals.
6. Location of all right-of-way and easements adjacent to the work area as shown on the right-of-way Plans.
7. Offset of all permanent concrete sidewalks, curb ramps, and driveways.

Each stake shall have the following information: Hub elevation, offset distance to items being staked, cut/fill to proposed elevations, design elevation of items being staked.

The above information shall also be shown on a written Cut Sheet and provided to the City inspector 48-hours prior to installation of the items being staked.

The Contractor shall establish all secondary survey controls, both horizontal and vertical, as necessary to assure proper placement of all project elements based on the primary control points provided by the Engineer. Survey work shall be within the following tolerances:

- **Stationing**: ± 0.01 foot
- **Alignment**: ± 0.01 foot (between successive points)
- **Superstructure Elevations**: ± 0.01 foot (from plan elevations)
- **Substructure Elevations**: ± 0.05 foot (from plan elevations)
- **Sidewalk and Curb Ramp Elevations**: ± 0.01 foot (from plan elevations)

During the progress of the work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities.

The Contractor shall be fully responsible for the close coordination of field locations and measurements with appropriate dimensions of structural members being fabricated.

(July 23, 2015 APWA GSP)
1-05.4(2) **Bridge and Structure Surveys**

For all structural work such as bridges and retaining walls, the Contractor shall retain as a part of Contractor’s organization an experienced team of surveyors.

The Contractor shall provide all surveys required to complete the structure, except the following primary survey control which will be provided by the Engineer:
1. Centerline or offsets to centerline of the structure.
2. Stations of abutments and pier centerlines.
3. A sufficient number of bench marks for levels to enable the Contractor to set grades at reasonably short distances.
4. Monuments and control points as shown in the Plans.

The Contractor shall establish all secondary survey controls, both horizontal and vertical, as necessary to assure proper placement of all project elements based on the primary control points provided by the Engineer. Survey work shall be within the following tolerances:

- **Stationing**: ± 0.01 foot
- **Alignment**: ± 0.01 foot (between successive points)
- **Superstructure Elevations**: ± 0.01 foot (from plan elevations)
- **Substructure Elevations**: ± 0.05 foot (from plan elevations)
During the progress of the work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities.

The Contractor shall be fully responsible for the close coordination of field locations and measurements with appropriate dimensions of structural members being fabricated.

(1/1/2016 COK GSP)

**Measurement**

No unit of measurement shall apply to the lump sum price for construction surveying.

**Payment**

Payment will be made in accordance with Section 1-04.1 of these Specifications for the following bid item:

"Construction Surveying", per lump sum.

The lump sum Contract price for "Construction Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

(October 1, 2005 APWA GSP)

**1-05.7 Removal of Defective and Unauthorized Work**

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor’s unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency’s rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency’s right to pursue any other avenue for additional remedy or damages with respect to the Contractor’s failure to perform the work as required.
1-05.4(3)  Monument Surveying

The Contractor will be responsible for perpetuating and documenting existing monuments in compliance with the Application for Permit to Remove or Destroy a Survey monument (WAC 332-120), to be performed by a Professional Land Surveyor (PLS). The Contractor shall submit a staking request to reference the location of existing monuments prior to removal. Upon completion of the roadway surface, the destroyed and new proposed monuments positions shall be set and referenced by the Contractor. The Contractor shall then drill and core out the monument position, install the poured monument, and place a blank brass monument centered in the cored position. The Contractor will then mark the referenced position and file a completion report for Monument Removal or Destruction with DNR, as applicable for pre-existing monuments, or a Record of Survey for new monuments. Contractor shall provide documentation to the City a minimum of 4 working days prior to removal of monument showing the monument has been referenced.

Measurement

Each monument that will be destroyed and replaced shall be measured per each. This bid item shall include all work associated with obtaining the necessary permits, recording fees, construction surveying, monument removal and replacement, and all other work associated with removing and replacing the existing monuments.

Payment

Payment will be made in accordance with Section 1-04.1 of these Specifications for the following bid item:

"Monument Surveying, Remove & Replace", per each.

(1/1/2016 COK GSP)

1-05.9  Equipment

The following new paragraph is inserted between the second and third paragraphs:

Use of equipment with metal tracks will not be permitted on concrete or asphalt surfaces unless otherwise authorized by the Engineer.

(1/1/2016 COK GSP)

1-05.10  Guarantees

Section 1-05.10 is supplemented as follows:

Guarantees and maintenance bonds shall be in accordance with City of Kirkland, State of Washington, Public Works Performance and Payment Bond forms and requirements. The performance bond shall be in the full amount of contract. The Contractor guarantees all items of material, equipment, and workmanship against mechanical, structural, or other defects for which the Contractor is responsible that may develop or become evident within a period of one year from and after acceptance of the work by the Owner. This guarantee shall be understood to require prompt remedy of defects upon written notification to the Contractor. If the Owner determines the defect requires immediate repair, the Owner may, without further notice to the Contractor, make the necessary corrections, the cost of which shall be borne by the Contractor. To support the above guarantee, the Contractor's performance bond shall remain in full force and effect for one year following the acceptance of the project by the Owner.

(October 1, 2005 APWA GSP)

1-05.11  Final Inspection

Delete this section and replace it with the following:
1-05.11 Final Inspections and Operational Testing

1-05.11(1) Substantial Completion Date

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

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

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

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

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

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

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

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

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

1-05.11(3) Operational Testing

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

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

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

(March 8, 2013 APWA GSP)
1-05.12 Final Acceptance

Add the following new section:

1-05.12(1) One-Year Guarantee Period

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

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

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

(August 14, 2013 APWA GSP)
1-05.13 Superintendents, Labor and Equipment of Contractor

Delete the sixth and seventh paragraph of this section.

(March 25, 2009 APWA GSP)
1-05.15 Method of Serving Notices

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer’s office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.
1-05.16 Water and Power

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the contract includes power and water as a pay item.

1-06 CONTROL OF MATERIAL

(1/1/2016 COK GSP)
1-06.1 Approval of Materials Prior to Use

Section 1-06.1 is supplemented as follows:

Approval of a Material source shall not mean acceptance of the Material. The Material shall meet the requirements of the Contract.

(June 27, 2011 AWPA GSP)
1-06.1(4) Fabrication Inspection Expense

Delete this section in its entirety.

(January 4, 2016 APWA GSP)
1-06.6 Recycled Materials

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Table 9-03.21(1)E in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor’s report shall be provided on DOT form 350-075 Recycled Materials Reporting.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

(1/1/2016 COK GSP)
1-07.1 Laws to Be Observed

Section 1-07.1 is supplemented with the following:

The Contractor shall at all times eliminate noise to the maximum practicable extent. Air compressing plants shall be equipped with silencers, and the exhaust of all gasoline motors or other power equipment shall be provided with mufflers. Special care shall be used to avoid noise or other nuisances, and the Contractor shall strictly observe all federal, state, and local regulations concerning noise.

The Contractor shall make an effort to reduce carbon emissions by turning off engines on construction equipment not in active use, and on trucks that are idling while waiting to load or unload material for five minutes or more.

Compliance with Laws

The Contractor shall comply with the requirements of all other City ordinances, state statutes, laws, and regulations, whether or not stated herein, which are specifically applicable to the public improvements and work to be performed.
In cases of conflict between different safety regulations, the more stringent regulation shall apply.

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

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

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

These construction documents and the joint and several phases of construction hereby contemplated are to be governed at all times by applicable provisions of the federal law(s), including but not limited to the latest amendments of the following:

Williams-Steiger Occupational Safety and Health Act of 1980, Public Law 91-596.

Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.

This project, the Contractor and its subcontractors, shall, at all times, be governed by Chapter XIII of Title 29, Code of Federal Regulations, Part 1518 - Safety and Health Regulations for Construction (35 CFR 75), as amended to date.

To implement the program, and to provide safe and healthful working conditions for all persons, the construction superintendent or his/her designated safety officer shall conduct general project safety meetings at the site at least once each month during the course of construction.

The prime contractor and all subcontractors shall immediately report all accidents, injuries, and health hazards to the Manager, in writing. This shall not obviate any mandatory reporting under the provisions of the Occupational Safety and Health Act of 1970. This program shall become a part of the contract documents and the contract between the Owner and the Contractor, and all subcontractors, as though fully written therein.

Where the location of the work is in proximity to overhead wires and power lines, the Contractor shall coordinate all work with the utility and shall provide for such measures as may be necessary for the protection of the workers.
1-07.2 State Taxes

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.
Special Provisions

1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

(June 8, 2017 APWA GSP, Option A)

1-07.11 Requirements for Nondiscrimination

Supplement this section with the following:

Disadvantaged Business Enterprise Participation

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 and USDOT’s official interpretations (i.e., Questions & Answers) apply to this Contract. As such, the requirements of this Contract are to make affirmative efforts to solicit DBEs, provide information on who submitted a Bid or quote and to report DBE participation monthly as described elsewhere in these Contract Provisions. No preference will be included in the evaluation of Bids/Proposals, no minimum level of DBE participation shall be required as a Condition of Award and Bids/Proposals may not be rejected or considered non-responsive on that basis.

DBE Abbreviations and Definitions

Broker – A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the Contract; or, persons/companies who arrange or expedite transactions.

Certified Business Description – Specific descriptions of work the DBE is certified to perform, as identified in the Certified Firm Directory, under the Vendor Information page.


Commercially Useful Function (CUF)

49 CFR 26.55(c)(1) defines commercially useful function as: “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, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.”

Contract – For this Special Provision only, this definition supplements Section 1-01.3.49 CFR 26.5 defines contract as: “… a legally binding relationship obligating a seller to furnish supplies or services (including, but not limited to, construction and professional services) and the buyer to pay for them. For purposes of this part, a lease is considered to be a contract.”

Disadvantaged Business Enterprise (DBE) – A business firm certified by the Washington State Office of Minority and Women’s Business Enterprises, as meeting the criteria outlined.
in 49 CFR 26 regarding DBE certification. A Underutilized Disadvantaged Business Enterprise (UDBE) firm is a subset of DBE.

**Force Account Work** – Work measured and paid in accordance with Section 1-09.6.

**Manufacturer (DBE)** – A DBE firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract. A DBE Manufacturer shall produce finished goods or products from raw or unfinished material or purchase and substantially alters goods and materials to make them suitable for construction use before reselling them.

**Regular Dealer (DBE)** – A DBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of a Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a Regular Dealer, the DBE firm must be an established regular business that engages in, as its principal business and in its own name, the purchase and sale of the products in question. A Regular Dealer in such items as steel, cement, gravel, stone, and petroleum products need not own, operate or maintain a place of business if it both owns and operates distribution equipment for the products. Brokers, packagers, manufacturers’ representatives, or other persons who arrange or expedite transactions shall not be regarded as Regular Dealers within the meaning of this definition.

**DBE Goals**
No DBE goals have been assigned as part of this Contract.

**Affirmative Efforts to Solicit DBE Participation**
The Contractor shall not discriminate on the grounds of race, color, sex, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. DBE firms shall have an equal opportunity to compete for subcontracts in which the Contractor enters into pursuant to this Contract.

Contractors are encouraged to:

1. Advertise opportunities for Subcontractors or suppliers in a timely and reasonably designed manner to provide notice of the opportunity to DBEs capable of performing the Work. All advertisements should include a Contract Provision encouraging participation by DBE firms. This may be accomplished through general advertisements (e.g. newspapers, journals, etc.) or by soliciting Bids/Proposals directly from DBEs.

2. Establish delivery schedules that encourage participation by DBEs and other small businesses.

3. Participate with a DBE as a joint venture.

**DBE Eligibility/Selection of DBEs for Reporting Purposes Only**
Contractor may take credit for DBEs utilized on this Contract only if the firm is certified for the Work being performed, and the firm performs a commercially useful function (CUF).

Absent a mandatory goal, all DBE participation that is attained on this project will be considered as “race neutral” participation and shall be reported as such.

**Crediting DBE Participation**
All DBE Subcontractors shall be certified before the subcontract on which they are participating is executed.
Be advised that although a firm is listed in the directory, there are cases where the listed firm is in a temporary suspension status. The Contractor shall review the OMWBE Suspended DBE firms list. A DBE firm that is included on this list may not enter into new contracts that count towards participation.

DBE participation is only credited upon payment to the DBE.

The following are some definitions of what may be counted as DBE participation.

**DBE Prime Contractor**
Only take credit for that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE Prime Contractor performs with its own forces and is certified to perform.

**DBE Subcontractor**
Only take credit for that portion of the total dollar value of the subcontract equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces. The value of work performed by the DBE includes the cost of supplies and materials purchased by the DBE and equipment leased by the DBE, for its work on the contract. Supplies, materials, equipment obtained by a DBE that are not utilized or incorporated in the contract work by the DBE will not be eligible for DBE credit.

The supplies, materials, and equipment purchased or leased from the Contractor or its affiliate, including any Contractor's resources available to DBE subcontractors at no cost, shall not be credited.

DBE credit will not be given in instances where the equipment lease includes the operator. The DBE is expected to operate the equipment used in the performance of its work under the contract with its own forces. Situations where equipment is leased and used by the DBE, but payment is deducted from the Contractor's payment to the DBE is not allowed.

If a DBE subcontracts a portion of the Work of its contract to another firm, the value of the subcontracted Work may be credited only if the DBE’s Lower-Tier Subcontractor is also a DBE. Work subcontracted to a non-DBE shall not be credited.

Count expenditures toward race/gender-neutral participation only if the DBE is performing a CUF on the contract.

**DBE Subcontract and Lower Tier Subcontract Documents**
There must be a subcontract agreement that complies with 49 CFR Part 26 and fully describes the distinct elements of Work committed to be performed by the DBE. The subcontract agreement shall incorporate requirements of the primary Contract. Subcontract agreements of all tiers, including lease agreements shall be readily available at the project site for the Engineer review.

**DBE Service Provider**
The value of fees or commissions charged by a DBE Broker or a DBE behaving in a manner of a Broker, or another service provider for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance specifically required for the performance of the contract will only be credited as DBE participation, if the fee/commission is determined by the Contracting Agency to be reasonable and the firm has performed a CUF.

**Temporary Traffic Control**
If the DBE firm is being utilized in the capacity of only “Flagging”, the DBE firm must provide a Traffic Control Supervisor (TCS) and flagger, which are under the direct control of the
DBE. The DBE firm shall also provide all flagging equipment (e.g. paddles, hard hats, and vests).

If the DBE firm is being utilized in the capacity of “Traffic Control Services”, the DBE firm must provide a TCS, flaggers, and traffic control items (e.g., cones, barrels, signs, etc.) and be in total control of all items in implementing the traffic control for the project. In addition, if the DBE firm utilizes the Contractor’s equipment, such as Transportable Attenuators and Portable Changeable Message Signs (PCMS) no DBE credit can be taken for supplying and operating the items.

**Trucking**

DBE trucking firm participation may only be credited as DBE participation for the value of the hauling services, not for the materials being hauled unless the trucking firm is also certified as a supplier. In situations where the DBE’s work is priced per ton, the value of the hauling service must be calculated separately from the value of the materials in order to determine DBE credit for hauling.

The DBE trucking firm must own and operate at least one licensed, insured and operational truck on the contract. The truck must be of the type that is necessary to perform the hauling duties required under the contract. The DBE receives credit for the value of the transportation services it provides on the Contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

The DBE may lease additional trucks from another DBE firm. The Work that a DBE trucking firm performs with trucks it leases from other certified DBE trucking firms qualify for 100% DBE credit.

The trucking Work subcontracted to any non-DBE trucking firm will not receive credit for Work done on the project. The DBE may lease trucks from a non-DBE truck leasing company, but can only receive credit as DBE participation if the DBE uses its own employees as drivers.

DBE credit for a truck broker is limited to the fee/commission that the DBE receives for arranging transportation services.

**Truck registration and lease agreements shall be readily available at the project site for the Engineer review**

**DBE Manufacturer and DBE Regular Dealer**

One hundred percent (100%) of the cost of the manufactured product obtained from a DBE Manufacturer can count as DBE participation.

Sixty percent (60%) of the cost of materials or supplies purchased from a DBE Regular Dealer may be credited as DBE participation. If the role of the DBE Regular Dealer is determined to be that of a pass-through, then no DBE credit will be given for its services. If the role of the DBE Regular Dealer is determined to be that of a Broker, then DBE credit shall be limited to the fee or commission it receives for its services. Regular Dealer status and the amount of credit is determined on a Contract-by-Contract basis.

Regular Dealer DBE firms must be approved before being used on a project. The WSDOT Approved Regular Dealer list published on WSDOT’s Office of Equal Opportunity (OEO) web site must include the specific project for which approval is being requested. The Regular Dealer must submit the Regular Dealer Status Request form a minimum of five days prior to being utilized on the specific project.

Purchase of materials or supplies from a DBE which is neither a manufacturer nor a regular dealer, (i.e. Broker) only the 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, can count as DBE participation provided the fees are not excessive as compared with fees customarily allowed for similar services. Documentation will be required to support the fee/commission charged by the DBE. The cost of the materials and supplies themselves cannot be counted toward as DBE participation.

Note: Requests to be listed as a Regular Dealer will only be processed if the requesting firm is a material supplier certified by the Office of Minority and Women’s Business Enterprises in a NAICS code that falls within the 42XXXX NAICS Wholesale code section.

Procedures between Award and Execution
After Award and prior to Execution, the Contractor shall provide the additional information described below. Failure to comply shall result in the forfeiture of the Bidder’s Proposal bond or deposit.

1. A list of all firms who submitted a bid or quote in attempt to participate in this project whether they were successful or not. Include the business name and mailing address.

   Note: The firms identified by the Contractor may be contacted by the Contracting Agency to solicit general information as follows: age of the firm and average of its gross annual receipts over the past three-years.

Procedures after Execution
Commercially Useful Function (CUF)
The Contractor may only take credit for the payments made for Work performed by a DBE that is determined to be performing a CUF. Payment must be commensurate with the work actually performed by the DBE. This applies to all DBEs performing Work on a project, whether or not the DBEs are COA, if the Contractor wants to receive credit for their participation. The Engineer will conduct CUF reviews to ascertain whether DBEs are performing a CUF. A DBE performs a CUF when it is carrying out its responsibilities of its contract by actually performing, managing, and supervising the Work involved. The DBE must be responsible for negotiating price; determining quality and quantity; ordering the material and installing (where applicable); and paying for the material itself. If a DBE does not perform “all” of these functions on a furnish-and-install contract, it has not performed a CUF and the cost of materials cannot be counted toward UDBE COA Goal. Leasing of equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Contractor is not allowed. Lease agreements shall be readily available for review by the Engineer.

In order for a DBE traffic control company to be considered to be performing a CUF, the DBE must be in control of its work inclusive of supervision. The DBE shall employ a Traffic Control Supervisor who is directly involved in the management and supervision of the traffic control employees and services.

The DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of DBE participation.

The following are some of the factors that the Engineer will use in determining whether a DBE trucking company is performing a CUF:

- The DBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on the Contract. The owner demonstrates business related knowledge, shows up on site and is determined to be actively running the business.
• The DBE shall with its own workforce, operate at least one fully licensed, insured, and operational truck used on the Contract. The drivers of the trucks owned and leased by the DBE must be exclusively employed by the DBE and reflected on the DBE’s payroll.

• Lease agreements for trucks shall indicate that the DBE has exclusive use of and control over the truck(s). This does not preclude the leased truck from working for others provided it is with the consent of the DBE and the lease provides the DBE absolute priority for use of the leased truck.

• Leased trucks shall display the name and identification number of the DBE.

**Joint Checking**
A joint check is a check between a Subcontractor and the Contractor to the supplier of materials/supplies. The check is issued by the Contractor as payer to the subcontractor and the material supplier jointly for items to be incorporated into the project. The DBE must release the check to the supplier, while the Contractor acts solely as the guarantor.

A joint check agreement must be approved by the Engineer and requested by the DBE involved using the DBE Joint Check Request Form (form # 272-053) prior to its use. The form must accompany the DBE Joint Check Agreement between the parties involved, including the conditions of the arrangement and expected use of the joint checks.

The approval to use joint checks and the use will be closely monitored by the Engineer. To receive DBE credit for performing a CUF with respect to obtaining materials and supplies, a DBE must “be responsible for negotiating price, determining quality and quantity, ordering the material and installing and paying for the material itself.” The Contractor shall submit DBE Joint Check Request Form for the Engineer approval prior to using a joint check.

Material costs paid by the Contractor directly to the material supplier is not allowed. If proper procedures are not followed or the Engineer determines that the arrangement results in lack of independence for the DBE involved, no DBE credit will be given for the DBE’s participation as it relates to the material cost.

**Prompt Payment**
Prompt payment to all subcontractors shall be in accordance with Section 1-08.1. Prompt Payment requirements apply to progress payments as well as return of retainage.

**Reporting**
The Contractor and all subcontractors/suppliers/service providers that utilize DBEs to perform work on the project, shall maintain appropriate records that will enable the Engineer to verify DBE participation throughout the life of the project.

Refer to Section 1-08.1 for additional reporting requirements associated with this Contract.

**Decertification**
When a DBE is “decertified” from the DBE program during the course of the Contract, the participation of that DBE shall continue to count as DBE participation as long as the subcontract with the DBE was executed prior to the decertification notice. The Contractor is obligated to substitute when a DBE does not have an executed subcontract agreement at the time of decertification.

**Consequences of Non-Compliance**
Each contract with a Contractor (and each subcontract the Contractor signs with a Subcontractor) must include the following assurance clause:
The Contractor, subrecipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

1. Withholding monthly progress payments;
2. Assessing sanctions;
3. Liquidated damages; and/or
4. Disqualifying the Contractor from future bidding as non-responsible.

**Payment**
Compensation for all costs involved with complying with the conditions of this Specification and any other associated DBE requirements is included in payment for the associated Contract items of Work, except otherwise provided in the Specifications.

**Small Business Enterprise Participation**
The Small Business Enterprise (SBE) Program is an element of the Disadvantaged Business Enterprise (DBE) Program in accordance with the requirements of 49 CFR Part 26.39. As such, the requirements of this contract establish affirmative efforts to utilize SBE certified firms on construction projects. No preference will be included in the evaluation of Bids/Proposals. No minimum level of SBE participation shall be required as a Condition of Award and Bids/Proposals may not be rejected or considered non-responsive on that basis.

**Voluntary SBE Goals**
A voluntary goal amount of ten percent of the Contract bid amount is established.

The goal is voluntary, but achievement of the goal is encouraged. No preference will be included in the evaluation of bids/proposals. Bidders may contact the Washington State Office of Minority and Women’s Business Enterprises (OMWBE) at 360-664-9750 or visit www.omwbe.wa.gov to obtain information on certified SBE firms.

**Required SBE Participation Plan**
The Contractor shall submit a SBE Participation Plan prior to commencing contract work. Although the goal is voluntary, the outreach efforts to provide SBE maximum practicable opportunities are not.

For SBE Participation Plan Drafting Guidelines, please visit:

[www.wsdot.wa.gov/equalopportunity](http://www.wsdot.wa.gov/equalopportunity)
Prompt Payment
Prompt payment to all subcontractors shall be in accordance with Section 1-08.1. Prompt payment requirements apply to progress payments as well as return of retainage.

Required SBE Reporting
The Contractor and all subcontractors/suppliers/service providers that utilize DBEs to perform work on the project, shall maintain appropriate records that will enable the Engineer to verify DBE participation throughout the life of the project.

Refer to Section 1-08.1 for additional reporting requirements associated with this contract.

Definitions
Regardless of race or gender, a SBE is one certified by OMWBE as such, where the firm’s:

- Three year averaged gross receipts are less than $22.41 million dollars, with smaller industry standards applicable
- Is at least 51% owned and controlled by an individual or individuals with a personal net worth less than $1.32 million dollars
- A Micro Small Business Enterprise is a firm certified as an SBE with average gross receipts for three years less than one million dollars.

(1/1/2016 COK GSP)
1-07.14 Responsibility for Damage
Section 1-07.14 is supplemented with the following:

The Contractor further agrees that it is waiving immunity under Industrial Insurance Law Title 51 RCW for any claims brought against the City by its employees. In the event Contractor fails, after receipt of timely notice from the City, to appear, defend, or pay as required by the first paragraph of this section, then in that event and in that event only, the City may in its sole discretion, deduct from the progress payments to the Contractor and pay any amount sufficient to pay any claim, of which the City may have knowledge and regardless of the informalities of notice of such claim, arising out of the performance of this contract, provided the City has theretofore given notice of receipt of such claim to the Contractor and the Contractor has failed to act thereon.

1-07.15 Temporary Water Pollution/Erosion Control
(1/10/2019 COK GSP)
1-07.15(1) Spill Prevention, Control, and Countermeasures Plan
Add the following as the second paragraph of this section:

In the event the Contractor uses an SPCC Plan template that either follows the WSDOT SPCC Plan Template or contains the same or similar content and/or format, the following changes shall be required:

1. Replace all references to “WSDOT” as either the Contracting Agency or project owner with “City of Kirkland”, except where indicated in this Section.
2. Add into all Spill Reporting and related section(s): “The City of Kirkland Spill Response Hotline at (425) 587-3900 shall be the first point of contact in the event of a spill. Notification to the City of Kirkland Spill Response Hotline shall precede the spill notifications to federal and state agencies.”
3. Delete all references to the “WSDOT Environmental Compliance Assurance Procedure” (ECAP) in the SPCC.
Supplement the following referenced SPCC Plan Element Requirements in this Section as follows:

2. Add: “The City of Kirkland Spill Response Hotline at (425) 587-3900 shall be the first point of contact in the event of a spill.”

8. Add: “As part of Contractor spill response procedure, the Contractor shall contact the City of Kirkland Spill Response Hotline at (425) 587-3900 to report the spill regardless of whether or not the Contractor has fully contained, controlled, and/or cleaned up the spill.”

1-07.16 Protection and Restoration of Property

(1/1/2016 COK GSP)
1-07.16(3) Fences, Mailboxes, Incidentals

Section 1-07.16(3) is supplemented with the following:

U.S. Postal Service Collection Boxes, Mail Receptacles, and other Structures: U.S. Postal Service collection box and other Structures requiring temporary relocation to accommodate construction, the Contractor shall contact the Kirkland Postmaster at least 5 Working Days in advance for coordination. Only the U.S. Post Office will move Postal Service-owned property.

(1/1/2016 COK GSP)
1-07.17 Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

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

The Contractor is alerted to the existence of Chapter 19.122 RCW, a law relating to underground utilities. Any cost to the Contractor incurred as a result of this law shall be at the Contractor's expense.

No excavation shall begin until all known facilities in the vicinity of the excavation area have been located and marked.

The Contractor shall give advance notice to all utility companies involved where work is to take place and in all other respects comply with the provisions of Chapter 19.122 RCW. Notice shall include, but not be limited to, the following utility companies:

1. Water, sewer, storm, streets – minimum two working days in advance
2. Power (Electric and Natural Gas) – minimum 48 hours in advance
3. Telephone – minimum 30 days in advance
4. Natural Gas – minimum 48 hours in advance
5. Cable Television – minimum 48 hours in advance
6. Transit – minimum 21 days in advance

The following is a list of some utilities serving the Kirkland area. This is not intended or represented to be a complete list and is provided for the Contractor's convenience:

<table>
<thead>
<tr>
<th>Utility</th>
<th>Agency/Company</th>
<th>Address</th>
<th>Contact</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water/Sewer</td>
<td>City of Kirkland</td>
<td>123 Fifth Avenue, Kirkland, WA 98033</td>
<td>Josh Pantzke</td>
<td>(425) 587-3900</td>
</tr>
<tr>
<td>Storm Drainage</td>
<td>City of Kirkland</td>
<td>123 Fifth Avenue, Kirkland, WA 98033</td>
<td>Josh Pantzke</td>
<td>(425) 587-3900</td>
</tr>
</tbody>
</table>
Note that most utility companies may be contacted for locations through the “One Call” system, 1-800-424-5555. In the event of a gas emergency, call 911 and then the PSE hotline at 1-888-225-5773 (1-888-CALL-PSE).

The Contractor shall coordinate the work with these utilities and shall notify the Engineer in advance of any conflicts affecting the work schedule. The utility companies shall witness or perform all shutdowns, connections or disconnections.

Wherever in the course of the construction operation it becomes necessary to cause an outage of utilities, it shall be the Contractor's responsibility to notify the affected users not less than twenty-four (24) hours in advance of the creation of such outage. The Contractor shall make reasonable effort to minimize the duration of outages.

The Contractor shall be responsible for any breakage of utilities or services resulting from its operations and shall hold the City and its agents harmless from any claims resulting from disruption of, or damage to, same.

**Other Notifications**

**Service Area Turn Off:** All service area turn off notices must be distributed to affected parties two working days in advance of any scheduled shut off. City to provide door hangers and affected service area map. The contractor shall fill in all required information prior to hanging door hanger.

**Paving Notification:** A minimum of 24-hours prior to paving activities the Contractor shall distribute door hangers to all property owners that will be impacted by their work. Door hangers will be provided to the Contractor by the City in advance of the paving operations. The contractor shall fill in all required information prior to hanging the door hanger. The Contractor shall be onsite working during the actual dates listed on the door hangers. The range of dates listed on the door hanger shall be kept to a minimum and not exceed a period longer than reasonable for completing the paving work in that area.
Restricted Access to Residences: If during the course of the construction it becomes necessary to restrict access to residences, it shall be the Contractor’s responsibility to notify the affected residents not less than twenty-four hours in advance of the restricted access. Residential access restrictions will only be allowed during the hours of 8:00 AM and 3:00 PM Monday through Friday. Access to businesses shall not be restricted.

Entry onto Private Property: Each property owner shall be given two working days advance written notice prior to entry by the Contractor.

Loop Detection Systems: Where an excavation is to take place through a signal loop detector system including conduit, the Contractor shall provide at least five (5) Working Days advance notice to the City Inspector at (206) 496-4265 and WSDOT Signal Technician (206) 255-4024 to coordinate temporary signal wire disconnect and installation of temporary signal detection equipment.

Note: The signals located at the following intersection will be affected:

- Intersection of NE 70th Pl and 116th Ave NE,

The City of Kirkland project inspector shall be notified a minimum of five (5) Working Days in advance of the installation of the temporary video detections at this intersection. The City will provide video detection equipment to the contractor for installation at this intersection. See section 8-20.3(14)C in these special provisions for temporary detection requirements for these intersections. A City representative and a WSDOT representative shall be on site during the installation for camera setup and support.

(1/1/2016 COK GSP)
1-07.17(2) Utility Construction, Removal or Relocation by Others

Section 1-07.17(2) is supplemented with the following:

Under no circumstances will discrepancies in location or incompleteness in description of existing utilities or improvements, whether they are visible from the surface, buried, or otherwise obscured, be considered as a basis for additional compensation to the Contractor.

(******)
1-07.17(5) Utility Potholing

Potholing is included as an item for use in determining the location of existing utilities in advance of the Contractor’s operations. The Contractor shall submit all potholing requests to the Engineer for approval, at least 2 working days before potholing is scheduled. Additionally, the Contractor shall provide potholing at Engineer’s request. Potholing for the convenience of the Contractor’s work shall be performed at no cost to the City.

In no way shall the work described under Utility Potholing relieve Contractor of any of the responsibilities described in Section 1-07.17 of the Standard Specifications and Special Provisions, and elsewhere in the Contract Documents.

(******)
1-07.17(6) Measurement

A Standard Bid item has been provided for Utility Potholing and shall be measured as a Force Account Item.

(******)
1-07.17(7) Payment

Payment will be made in accordance with Section 1-07.17 and 1-09.6 for the following bid items when included in the proposal:
“Utility Potholing”, per force account

“Utility Potholing” shall be all labor and equipment necessary to locate the utility as directed by the Engineer. The cost for Potholing shall also include backfilling and compacting the native material removed from the excavation.

(January 4, 2016 APWA GSP)
1-07.18 Public Liability and Property Damage Insurance

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

1-07.18 Insurance

1-07.18(1) General Requirements

A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer’s financial condition.

B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor’s Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.

C. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

D. The Contractor’s Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency’s insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor’s insurance and shall not contribute with it.

E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency

G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days’ notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.
1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder’s Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- The Contracting Agency and its officers, elected officials, employees, agents, and volunteers
- Consultants hired by the Contracting Agency to administer the Construction

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each Subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors.

The Contractor shall ensure that all Subcontractors of every tier add all entities listed in 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each Subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
3. Any other amendatory endorsements to show the coverage required herein.
4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.
Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Contractor’s maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency’s recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy’s deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor’s completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

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

1-07.18(5)B Automobile Liability

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

Such policy must provide the following minimum limit:

- $1,000,000 Combined single limit each accident

1-07.18(5)C Workers’ Compensation

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

(January 4, 2016 APWA GSP)

1-07.18(5) D Excess or Umbrella Liability
Special Provisions -44

The Contractor shall provide Excess or Umbrella Liability insurance with limits of not less than $3,000,000 per each occurrence and annual aggregate. This excess or umbrella liability coverage shall be excess over and as least as broad in coverage as the Contractor’s Commercial General and Auto Liability insurance.

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

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

(January 4, 2016 APWA GSP)

1-07.18(5)K Professional Liability

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

Such policy shall provide the following minimum limits:

$1,000,000 per claim and annual aggregate

If the scope of such design-related professional services includes work related to pollution conditions, the Professional Liability insurance shall include coverage for Environmental Professional Liability.

If insurance is on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract.

1-07.23 Public Convenience and Safety

Section 1-07.23 is supplemented with the following:

(1/1/2016 COK GSP)

No road or street shall be closed to the public except as permitted in these plans and specifications or with the approval of the Engineer and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to fire fighting equipment at all times. Provision shall be made by the Contractor to ensure the proper functioning of all gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses, and storm sewer facilities throughout the project. Temporary interruption of service will be allowed only with the permission of the Engineer.

The Kirkland Police Department and Kirkland Fire Department shall be notified at least four (4) hours in advance of any actions by the Contractor that may affect the functions of either the Police Department or Fire Department.

The Contractor shall conduct its work and take preventative measures so that dust or other particulate matter in the project area shall not become objectionable to the adjacent property owners or general public. Should the Owner determine the Contractor is not fulfilling its obligation in this regard; the Owner reserves the right to take such action as may be necessary to remedy the objectionable condition and to charge the Contractor with any cost that may be incurred in such remedial action. All work shall be carried on with due regard for the safety of the public. No driveway, whether public, commercial, or private, may be closed without prior approval of the Owner, project supervisor, or Engineer unless written authority has been given by the affected property owner. The Contractor shall be responsible for notifying the affected property owners 24 hours in advance of scheduled interruptions to access.
Pedestrian Control and Protection

When the work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration must be given to pedestrian safety. Maximum effort must be made to separate pedestrians from the work area. Protective barricades, fencing, and bridges, together with warning and guidance devices and signs, shall be utilized so that the passageway for pedestrians is safe and well defined. Whenever pedestrian walkways are provided across excavations, they shall be provided with suitable handrails. Footbridges shall be safe, strong, free of bounce and sway, have a slip resistant coating, and be free of cracks, holes, and irregularities that could cause tripping. Ramps shall be provided at the entrance and exit of all raised footbridges, again to prevent tripping. Adequate illumination and reflectorization shall be provided during hours of darkness. All walkways shall be maintained with at least 4 feet clear width.

Where walks are closed by construction, an alternate walkway shall be provided, preferably within the planting strip.

Where it is necessary to divert pedestrians into the roadway, barricading or channeling devices shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. At no time shall pedestrians be diverted into a portion of a street used concurrently by moving vehicular traffic.

At locations where adjacent alternate walkways cannot be provided, appropriate signs shall be posted at the limits of construction and in advance of the closure at the nearest crosswalk or intersection to divert pedestrians across the street.

Physical barricades shall be installed to prevent visually impaired people from inadvertently entering a closed area. Pedestrian walkways shall be wheelchair accessible at all times. Pedestrian access shall be maintained to all properties adjacent to the construction site.

Posting of “No Parking” Signs Prior to Work

When necessary to complete the work specified under this contract, the Contractor shall furnish and install, at no expense to the Contracting Agency, temporary “No Parking” signs at least twenty-four (24) hours in advance of start of work. The Contractor shall be responsible for coordinating the removal of non-compliant vehicles from the work zone with the Kirkland Police Department.

All temporary “No Parking” signs shall clearly indicate the date(s) of construction and include the words “Tow Away Zone”. If the schedule of work changes, for any reason, the Contractor shall change the dates indicated on the sign. The contractor shall be onsite working on the days indicated on the sign. A range of dates that span multiple project areas will not be acceptable.

Rights of Way

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor’s construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor’s attention by a duly issued Addendum.
Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

(*****)

The Contractor will not be allowed to use landscaped median islands to stage or store materials, equipment or signs.

(1/1/2016 COK GSP)

The Contractor shall file with the Engineer signed property release forms (in the format as detailed below) for all properties disturbed or damaged by the Contractor's operations.
PROPERTY RELEASE

I, ____________________________, hereby release ___________________________,
from any property damage or personal injury resulting from construction on or adjacent to my property located at _______________, during construction of the ___________________________. My signature below is my acknowledgment and acceptance that my property, as identified above, was returned to a satisfactory condition.

Signed:

Name:

Address:

Phone:

1-08 PROSECUTION AND PROGRESS

Add the following new section:

(May 25, 2006 APWA GSP)
1-08.0 Preliminary Matters

Add the following new section:

(October 10, 2008 APWA GSP)
1-08.0(1) Preconstruction Conference

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

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

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

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

**1-08.0(2) Hours of Work**

Except in the event of an emergency or as noted below, no work shall be done between the hours of 6:00 p.m. and 7:00 a.m. or weekends (except driveway construction), or holidays observed by the City of Kirkland and identified in Section 1-08.5 of the Standard Specifications. If the proper and efficient prosecution of the work requires operations during the night, hours of operation more than 8 hours per day, or work weeks greater than 40 hours in duration, the written permission of the Owner shall be obtained before starting such items of the work and shall be in full compliance with terms therewith.

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. The normal straight time 8-hour working period for the contract shall be established at the preconstruction conference or prior to the Contractor commencing the work.

If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Engineer for permission to work such times. Permission to work longer than an 8-hour period between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to the Engineer no later than noon on the working day prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 10:00 p.m. and 7:00 a.m. during weekdays and between the hours of 10:00 p.m. and 9:00 a.m. on weekends or holidays may also be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency’s noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor’s operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Contracting Agency or Engineer. These conditions may include but are not limited to: requiring the Engineer or such assistants as the Engineer may deem necessary to be present during the work; requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency employees who worked during such times, on non-Federal aid projects; considering the work performed on Saturdays and holidays as working days with regards to the contract time; and considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period. Assistants may include, but are not limited to, survey crews; personnel from the Contracting Agency’s material testing lab; inspectors; and other Contracting Agency employees when in the opinion of the Engineer, such work necessitates their presence.

**Arterial Streets**

No work will be performed on arterial streets during the peak traffic hours of 7:00 a.m. – 9:00 a.m. and 3:30 p.m. – 6:00 p.m., except emergency work to restore services, unless a City-approved traffic control plan allows work during the peak hours. The following streets are classified as arterials:

<table>
<thead>
<tr>
<th>STREET</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Way/NE 85th St</td>
<td>Market St</td>
<td>132nd Ave NE</td>
</tr>
<tr>
<td>Juanita Dr NE /NE Juanita Dr</td>
<td>NE 143rd St (City Limits)</td>
<td>98th Ave NE</td>
</tr>
<tr>
<td>Juanita Woodinville Way</td>
<td>100th Ave NE</td>
<td>NE 145th St (City Limits)</td>
</tr>
</tbody>
</table>
Night Work

Schedule C – All work within the intersection and within 250ft from the intersection of 116th Ave NE and NE 70th Pl that requires lane closures shall be constructed during night working hours. Night working hours shall be from 9:00 PM to 5:00 AM, Sunday through Thursday.

Night working hours shall be from 9:00 PM to 5:00 AM, Sunday through Thursday, or as otherwise established in the Noise Variance permit. Except in the event of an emergency no work on the above mentioned streets shall be done on weekends or on holidays observed by the City of Kirkland and identified in Section 1-08.5 of the Standard Specifications. No additional compensation will be made for work performed during the night hours.

Prior to construction in these areas, the Contractor shall apply and obtain a Noise Variance permit through the City of Kirkland Public Works Department. The Engineer can assist the Contractor with the completion of this application as needed. The Contractor shall comply with all requirements established by the Noise Variance permit obtained from the City of Kirkland.

(November 30, 2018 APWA GSP, Option B)
1-08.1 Subcontracting

Delete the eighth paragraph.

Add the following new section:

(1/1/2016 COK GSP)
1-08.1 Subcontracting

Section 1-08.1 is supplemented with the following:

A Subcontractor or an Agent to the 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).
2. Statement of Intent to Pay Prevailing Wages (Form 700-029-000).

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Department 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 Agents shall be open to similar inspection or audit for the same period.

(1/1/2016 COK GSP)
1-08.3  Progress Schedule

The order of work will be at the Contractor's option, in keeping with good construction practice and the terms of the contract. All work shall be carried out in accordance with the requirements of the City of Kirkland in compliance with the plans and specifications. However, the Contractor shall schedule the work within the time constraints noted in the various contract documents, including any permits. The Contractor is cautioned to review said documents and permits and schedule the work appropriately as no additional compensation will be made to the Contractor due to the time constraints imposed by such documents.

(March 13, 2012 APWA GSP)
1-08.3(2)A  Type A Progress Schedule

Revise this section to read:

The Contractor shall submit 3 copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

(******)
1-08.3(2)A  Type A Progress Schedule

This section is supplemented with:

The Type A Progress Schedule shall include the following information in addition to the schedule:

- Number of crews the schedule was based on.
- Number of workers in each crew.
- Number of Traffic Control personnel assigned
- Planned Working Hours and Days of the Week

(******)
Special Schedule Limitations

| Last day of school at the Lake Washington School District is June 20, 2019 |
| First Day of school at the Lake Washington School District is September 3, 2019 |
| Schedule D– 84th Ave NE/NE 132nd St: All work on 84th Ave NE/NE 132nd St shall occur during the summer break for Lake Washington School District, see above. |

(July 23, 2015 APWA GSP)
1-08.4  Prosecution of Work

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

Special Provisions -50
1-08.4 Notice to Proceed and Prosecution of Work

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

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

(November 30, 2018 APWA GSP, Option A)

1-08.5 Time for Completion

Revise the third and fourth paragraphs to read:

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

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

If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

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

1. The physical work on the project must be complete; and

2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
   a. Certified Payrolls (per Section 1-07.9(5)).
   b. Material Acceptance Certification Documents
c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
d. Final Contract Voucher Certification
e. Copies of the approved “Affidavit of Prevailing Wages Paid” for the Contractor and all Subcontractors
f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
g. Property owner releases per Section 1-07.24

(1/1/2016 COK GSP)
Section 1-08.5 is supplemented with the following:

This project shall be physically completed in its entirety within 75 working days.

(1/1/2016 COK GSP)
1-08.9 Liquidated Damages
The third paragraph of Section 1-08.9 is revised to read as follows:

Accordingly, the Contractor agrees:

1. To pay (according to the following formula) liquidated damages for each working day beyond the number of working days established for Physical Completion, and
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming to the Contractor.

LIQUIDATED DAMAGES FORMULA

For $C > 50,000 \rightarrow LD = 0.15 \times C + T, and
For $C \leq 50,000 \rightarrow LD = 0.30 \times C + T.

Where:
LD = liquidated damages per working day (rounded to the nearest dollar)
C = original Contract amount
T = original time for Physical Completion

(August 14, 2013 APWA GSP)
1-08.9 Liquidated Damages
Revise the fourth paragraph to read:

When the Contract Work has progressed to Substantial Completion as defined in the Contract. The Engineer may determine that the work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.
1-09  MEASUREMENT AND PAYMENT

1-09.2  Weighing Equipment

(1/1/2016 COK GSP)

1-09.2(1)  General Requirements for Weighing Equipment
The last paragraph of Section 1-09.2 is supplemented with the following:

**Trucks and Tickets**

All tickets shall, at a minimum, contain the following information:

7.  Ticket serial number
8.  Date and hour of weighing
9.  Weigher’s identification

Duplicate tally tickets shall be prepared to accompany each truckload of materials delivered to the project.

It is the responsibility of the Contractor to see that tickets are given to the Inspector on the project for each truckload of material delivered. Pay quantities will be prepared on the basis of said tally tickets, delivered to the Inspector at time of delivery of materials. Tickets not collected at the time of delivery will not be honored for payment.

(May 2, 2017 APWA GSP)

1-09.2(5)  Measurement
Revise the first paragraph to read:

**Scale Verification Checks** – At the Engineer's discretion, the Engineer may perform verification checks on the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

(October 10, 2008 APWA GSP)

1-09.6  Force Account
Supplement this section with the following:

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

(******)

Force account rate sheets for equipment and labor for the Contractor and all subcontractors shall be submitted to the Engineer no later than at the Preconstruction Conference.

(March 13, 2012 APWA GSP)

1-09.9  Payments
Supplement this section with the following:

Lump sum item breakdowns are not required when the bid price for the lump sum item is less than $20,000.
The basis of payment will be the actual quantities of Work performed according to the Contract and as specified for payment.

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

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

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

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

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

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

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

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

Unless otherwise agreed to by both parties, the work period shall coincide with the calendar month. A check will be mailed or made available to the Contractor no later than thirty (30) days following the last day of the work period.

Revise this section to read:
For the convenience of the parties to the Contract it is mutually agreed by the parties that any claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that any such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor’s failure to bring suit within the time period provided, shall be a complete bar to any such claims or causes of action. It is further mutually agreed by the parties that when any claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to any records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13 Claims Resolution

(1/1/2016 COK GSP)

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

Delete this Section and replace it with the following:

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

(November 30, 2018 APWA GSP)

1-09.13(3)A Administration of Arbitration

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency’s headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

1-10 TEMPORARY TRAFFIC CONTROL

(1/1/2016 COK GSP)

1-10.2 Traffic Control Management

1-10.2(2) Traffic Control Plans

The first and second sentences of Section 1-10.2(2) are deleted and replaced with the following:

The Contractor shall submit a traffic control plan or plans and pedestrian mobility plans showing a method of handling traffic during all phases of construction. All construction signs, flaggers, spotters and other traffic control devices shall be shown on the traffic control plan(s) and pedestrian mobility plan(s), except for emergency situations.

******

Vehicular and pedestrian traffic control along NE 70th Pl, 116th Ave NE, 84th Ave NE, NE 132nd St, and 3rd St shall include, but is not limited to, the use of portable changeable message signs, traffic safety drums, sequential arrow displays and extensive use of sidewalk detour signing. The costs of all necessary traffic control devices and signing shall be included in the lump sum price for “Project Temporary Traffic Control”.

Special Provisions -55
Traffic control plan for the intersection of 116th Ave NE and NE 70 Pl (Schedule C) will require review by WSDOT. Contractor shall allow a minimum of 10 working days for WSDOT review when submitting the traffic control plan for this area.

1-10.3(1)  Traffic Control Labor

(1/1/2016 COK GSP)

1-10.3(1)B  Other Traffic Control Labor

Off Duty Police

When construction activities occur at or near a signalized intersection, the Contractor shall provide an off-duty uniformed police officer to control the flow of traffic through the intersection. It is the Contractor’s responsibility to coordinate the scheduling of the Uniformed Police Officer. The Contractor shall first attempt to schedule with the City of Kirkland Off-Duty Police Officers prior to contacting other agencies’ Off-Duty Police Officers. The numbers below are provided for the convenience of the Contractor:

2. Puget Sound Executive Services (Off-duty Washington State Patrol Troopers): (206) 417-8282

1-10.3(3)  Traffic Control Devices

(******)

1-10.3(3)C Portable Changeable Message Sign

The Contractor shall provide, operate and maintain at least two (2) portable changeable message signs in each project area for the following schedules:

- Schedule B – 3rd St
- Schedule C – 116th Ave NE/NE 70th Pl
- Schedule D – NE84th Ave NE/NE 132nd St

Signs shall be placed and operational a minimum of 10 calendar days prior to any pavement repair, grinding or paving activity, or any activity that requires significant lane closures. Signs shall provide advance warning to traffic approaching the project area in each direction of travel on the arterial. Signs shall be left up and operational a minimum of 7 calendar days after the final paving. Contractor shall coordinate message text and sign location updates with City Inspector. Prior to sign setup the contractor shall submit plans showing sign location and proposed message for each of the following phases of work. The Contractor shall obtain any necessary permits required if signs are to be placed outside of Kirkland City Limits.

Construction at the intersection and within 250ft from the intersection of 116th Ave NE and NE 70th Pl (Night Work), a minimum of 4 signs are required.

1-10.4  Measurement

(1/1/2016 COK GSP)

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

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

“Other Traffic Control Labor-Off Duty Police” will be measured by the hour for each hour a person is actually performing the work.
1-10.5 Payment

(1/1/2016 COK GSP)

1-10.5(2) Item Bids with Lump Sum for Incidentals

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

“Flaggers and Spotters”, per hour.

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 incurred by the Contractor in performing the Contract work defined in Section 1-10.3(1)A. In addition, all “Other Traffic Control Labor” contract work described in Section 1-10.4(2), excluding “Other Traffic Control Labor - Off Duty Police” contract work, shall be paid for under the “Flaggers and Spotters” bid item.

“Other Traffic Control Labor - Off Duty Police”, per hour.

The unit contract price per hour for “Other Traffic Control Labor-Off Duty Police” shall be full pay for the work described herein. No additional compensation will be made for hours of work on holidays, weekends, or overtime.

Portable Changeable Message Signs will be paid for under the lump sum bid item for “Project Temporary Traffic Control”.

END OF DIVISION 1
DIVISION 2 - EARTHWORK

(*****)

2-01  CLEARING, GRUBBING, AND ROADSIDE CLEANUP

2-01.1 Description
The first paragraph of Section 2-01.1 is replaced with the following:

The Contractor shall clear, grub, and clean up those areas staked or described in the project Plans or Special Provisions. This Work includes protecting from harm all trees, bushes, shrubs, or other objects selected to remain.

Section 2-01.1 is supplemented with the following:

“Shoulder Preparation” means removing and disposing of all unwanted material, including grass, vegetation, moss, soil, or other debris adjacent to, or encroaching on, the existing edge of pavement or curb/gutter within the limits of the project as shown in the Plans. Grading and preparation for driveway and driveway apron construction shall fall under Shoulder Preparation.

2-01.2 Disposal of Usable Material and Debris
The third paragraph of Section 2-01.2 is replaced with the following:

The Contractor shall dispose of debris by Disposal Method No. 2 as described in Section 2-03.3(7)C.

2-01.3 Construction Requirements
Section 2-01.3 is supplemented with the following:

Shoulder Preparation

The Contractor shall:

Complete the shoulder preparation ahead of paving operations
Remove and dispose of all vegetative material within the paving limits

Contractor shall take care to prevent damage to landscaping plants or other vegetation on private property in close proximity to the roadway. The Contractor is responsible for all costs associated with the protection of this private landscaping. The Contractor shall assume responsibility for all repair/replacement costs for landscaping damaged by activities associated with the work.

2-01.4 Measurement
Section 2-01.4 is supplemented with the following:

Clearing and Grubbing will be measured by the square foot regardless of shape and depth. Only areas designated for clearing and grubbing on the Plans, or approved by the Engineer for removal, will be measured for payment.

No specific unit of measure shall apply to the lump sum price for shoulder preparation.

2-01.5 Payment
Section 2-01.5 is supplemented with the following:

“Clearing and Grubbing”, per square foot.
“Shoulder Preparation”, per lump sum.

(******)

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.1 Description

Section 2-02.1 is supplemented with the following:

The work described in this section includes sawcutting, removing, and disposing of asphalt concrete and cement concrete pavement, sidewalks, curb, and curb and gutter, gravel, soils, and all other items necessary to satisfactorily complete the work as described in the contract documents. Any backfill and compaction of the resulting voids will be considered incidental to this bid item.

2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

(******)

Sawcutting

This work consists of cutting all types and thicknesses of material including, but not limited to, asphalt concrete, cement concrete, and reinforcing steel. The use of pneumatic hammers or punches will not be permitted.

The Contractor shall be responsible for ensuring that special precautions are undertaken so that no material is discharged into any storm drain system or surface water. All waste water shall be collected by vacuum system and disposed of at an appropriate disposal site or by methods approved by the Washington State Department of Ecology at no cost to the City.

(******)

Removing Curb and Gutter

This work consists of removing cold mix curbs, asphalt concrete curbs, cement concrete curbs, cement concrete curb and gutters, berms, or thickened edge as indicated.

(******)

Removing Cement Conc. Sidewalk

This work consists of removing cement concrete sidewalk, driveway approach, driveway, walkway, and sidewalk ramps as indicated.

(******)

Removing Cement Concrete Extruded Curb

This work consists of removing cement concrete extruded curbs as indicated.

(******)

Removing Precast Dual Faced Sloped Mountable Curb

This work consists of removing precast dual faced sloped mountable curbs or Type C precast curbs as indicated.

(September 8, 1997)

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

Section 2-02.3(3) is supplemented with the following:
The thickness of the asphalt concrete pavement varies in thickness up to twelve (12) inches.

(*.*) Contractor shall notify affected businesses and residents prior to removal of driveways. If new concrete is not installed by the end of the work day that concrete is removed, Contractor shall provide temporary access at no additional cost to the Owner.

Pedestrian detours shall be in place prior to removal of sidewalks and/or ramps.

Portions of the of the sidewalk or curb/gutter damaged due to the Contractor’s operation, shall be removed to the next construction or crack control joint and replaced at the Contractor’s expense and to the satisfaction of the Engineer.

Contractor shall take care to prevent damage to landscaping plants or other vegetation on private property in close proximity to the structures/obstructions to be removed. The Contractor is responsible for all costs associated with the protection of this private landscaping. The Contractor shall assume responsibility for all repair/replacement costs for landscaping damaged by activities associated with the work.

(*.*) 2-02.3(4) Tree Removal

Section 2-02.3(4) is added as follows:

Select locations along the project require tree and stump removal. Prior to removal, the contractor shall obtain a permit, including all applicable fees, to remove the public tree from the City of Kirkland. A copy of this permit application is found in Appendix C of these specifications. The project inspector can assist in coordinating the permit submittal with the Contractor.

Trees identified for removal shall be removed in a manner that does not damage adjacent utilities. Tree removal shall consist of cutting and disposing of tree limbs and trunks. Stumps shall also be removed as part of tree removal. The Contractor shall coordinate removal activities with utility companies as required. If adjacent utilities prohibit the complete removal of the tree stump the Contractor shall notify the Inspector and remove as much of the stump as possible and then grind down the remainder of the stump. Tree stump grinding shall consist of grinding the stumps of the removed trees to a minimum of 6-inches below existing ground surface elevation. Tree removal and stump grinding (if necessary) shall occur prior to the placement of new concrete curb, gutter and sidewalk.

The Contractor shall assume responsibility for all repair/replacement for any overhead utilities damaged by the removal of the trees or stump grinding.

(*.*) 2-02.4 Measurement

Section 2-02.4 is added as follows:

Asphalt concrete pavement removal for concrete work will be measured by the square yard. Curb and gutter removal will be measured by the linear foot. Pedestrian curb removal will be measured by the linear foot. Sidewalk removal will be measured by the square yard. Tree removal will be measured per each tree & stump removed. Cement Concrete extruded curb removal will be measured by the linear foot regardless of shape and depth. Only curb designated for removal on the Plans, or approved by the Engineer for removal, will be measured for payment. Precast dual faced sloped mountable curb removal will be measured by the linear foot.
Removal and disposal of gravel, soils, and all other items necessary to accommodate the placement and compaction of Crushed Surfacing Top Course in areas of cement concrete work, and satisfactorily complete the work as described in the contract documents will not be measured.

Asphalt concrete curb, berms & thickened edge removal will not be measured.

Sawcutting will not be measured.

(******)

2-02.5 Payment

Section 2-02.5 is supplemented with the following:

“Removing Asphalt Conc. Pavement for Concrete Work”, per square yard.
“Removing Curb & Gutter”, per linear foot
“Removing Pedestrian Curb”, per linear foot
“Removing Cement Concrete Extruded Curb”, per linear foot
“Removing Precast Dual Faced Sloped Mountable Curb”, per lineal foot.
“Removing Cement Conc. Sidewalk”, per square yard
“Tree Removal”, per each

Removal and disposal of gravel, soils, and all other items necessary to accommodate the placement and compaction of Crushed Surfacing Top Course in areas of cement concrete work, and satisfactorily complete the work as described in the contract documents is considered incidental to the cost of removal of structures and obstructions and shall be included in the unit contract price of associated bid items.

Asphalt concrete curb, berm and thickened edge removal is considered incidental to the cost of planing bituminous pavement and shall be included in the unit contract price for the associated bid item.

Sawcutting is considered incidental to the cost of removal of structures and obstructions and shall be included in the unit contract price for the associated bid item.

No additional payment will be made for the removal of cold mix patches.

END OF DIVISION 2
**DIVISION 4 - BASES**

(******)

4-04 BALLAST AND CRUSHED SURFACING

4-04.1 Description

Section 4-04.1 is supplemented with the following:

The contract bid item “Crushed Surfacing Base Course for Pavement Repair” shall apply only to the material used for aggregate base in pavement repair areas as shown in the Plans.

The contract bid item “Crushed Surfacing Top Course for Concrete Work” shall apply only to the material used in areas of cement concrete work, including sidewalks, ramps, and traffic curb.

Crushed surfacing material used for edge restoration work is described in Section 8-31 of these Special Provisions and will not be measured separately.

4-04.5 Payment

Section 4-04.5 is supplemented with the following:

“Crushed Surfacing Base Course for Pavement Repair”, per ton

“Crushed Surfacing Top Course for Concrete Work”, per ton.

END OF DIVISION 4
DIVISION 5 – SURFACE TREATMENTS AND PAVEMENTS

(July 18, 2018 APWA GSP)

5-04  Hot Mix Asphalt

Delete this entire section and replace it with the following:

5-04.1  Description

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

5-04.2  Materials

Materials shall meet the requirements of the following sections:

Asphalt Binder 9-02.1(4)
Cationic Emulsified Asphalt 9-02.1(6)
Anti-Stripping Additive 9-02.4
HMA Additive 9-02.5
Aggregates 9-03.8
Recycled Asphalt Pavement 9-03.8(3)B
Mineral Filler 9-03.8(5)
Recycled Material 9-03.21
Portland Cement 9-01
Sand 9-03.1(2).
Joint Sealant 9-04.2
Foam Backer Rod 9-04.2(3)A

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP. The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced and not less than ten samples per project. The asphalt content and gradation test data shall be reported to the Contracting Agency when submitting the mix design for approval on the QPL. The Contractor shall include the RAP as part of the mix design as defined in these Specifications.

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.
The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01. Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

(******)
Section 5-04.2 is supplemented with the following:

The following table shall be used to determine the type and thickness of HMA to be used for paving each overlay street.

<table>
<thead>
<tr>
<th>SCHEDULE</th>
<th>STREET</th>
<th>HMA WEARING COURSE</th>
<th>OVERLAY THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule B</td>
<td>3rd Street</td>
<td>Cl. ½&quot;, PG 58H-22</td>
<td>3&quot;</td>
</tr>
<tr>
<td>Schedule C</td>
<td>116th Ave NE/NE 70th Pl</td>
<td>Cl. ½&quot;, PG 58H-22</td>
<td>3&quot;</td>
</tr>
<tr>
<td>Schedule D</td>
<td>84th Ave NE/NE 132nd St</td>
<td>Cl. ½&quot;, PG 58H-22</td>
<td>3&quot;</td>
</tr>
</tbody>
</table>

(July 18, 2018 APWA GSP)

5-04.2(1) How to Get an HMA Mix Design on the QPL

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

5-04.2(1)A – Vacant

5-04.2(2) Mix Design – Obtaining Project Approval

No paving shall begin prior to the approval of the mix design by the Engineer.

Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

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

Nonstatistical Mix Design. Fifteen days prior to the first day of paving the contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

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

- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.

- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.**
The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC’s) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall:

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).

- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

**Commercial Evaluation** Approval of a mix design for “Commercial Evaluation” will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL’s) appropriate for the required use.

**5-04.2(2)B Using Warm Mix Asphalt Processes**

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

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

- Before using additives, obtain the Engineer’s approval using WSDOT Form 350-076 to describe the proposed additive and process.

**5-04.3 Construction Requirements**

**5-04.3(1) Weather Limitations**

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.
Minimum Surface Temperature for Paving

<table>
<thead>
<tr>
<th>Compacted Thickness (Feet)</th>
<th>Wearing Course</th>
<th>Other Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 0.10</td>
<td>55°F</td>
<td>45°F</td>
</tr>
<tr>
<td>0.10 to .20</td>
<td>45°F</td>
<td>35°F</td>
</tr>
<tr>
<td>More than 0.20</td>
<td>35°F</td>
<td>35°F</td>
</tr>
</tbody>
</table>

(******)
Section 5-04.3(1) is supplemented by the following:

Asphalt for prime coat shall not be applied when the ground temperature is lower than 50°F without written approval of the Project Engineer.

(July 18, 2018 APWA GSP)
5-04.3(2) Paving under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

Plants used for the preparation of HMA shall conform to the following requirements:

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.

2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved
thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.

3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.

4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).

5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:
   a. A mechanical sampling device attached to the HMA plant.
   b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

**5-04.3(3)B Hauling Equipment**

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include, precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

**5-04.3(3)C Pavers**

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer’s recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer’s recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.
When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer’s approval, unless otherwise required by the contract.

Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.
5-04.3(3)E  Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer’s recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer’s recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4)  Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor’s operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A  Crack Sealing

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks ¼ inch in width and greater.

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

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

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

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

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

1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
2. Cracks greater than 1 inch in width – fill with sand slurry.

**Hot Poured Sealant:** For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer’s recommendations. Furnish a Type 1 Working Drawing of the manufacturer’s product information and recommendations to the Engineer prior to the start of work, including the manufacturer’s recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor’s method of sealing the cracks with hot poured sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material.

5-04.3(4)A2 Crack Sealing Areas Prior to Paving
In areas where HMA will be placed, use sand slurry to fill the cracks.

5-04.3(4)A3 Crack Sealing Areas Not to be Paved
In areas where HMA will not be placed, fill the cracks as follows:

A. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
B. Cracks greater than 1 inch in width – fill with sand slurry.

5-04.3(4)B Vacant

5-04.3(4)C Pavement Repair
The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor’s operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer.
The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

(*****)
Section 5-04.3(4)C is supplemented with the following:

**Unscheduled Pavement Repair**

Work performed under Unscheduled Pavement Repair shall include all materials and work associated with additional pavement repair required beyond the depths in the pavement repair sections shown in plans and shall only be performed if directed by the City. This work shall include additional excavation, haul and disposal of unsuitable soils, backfill and placement of the additional excavated area with crushed surfacing base course, compaction of crushed surfacing base course and all other work necessary to repair the subgrade for the appropriate pavement repair section.

*(July 18, 2018 APWA GSP)*

**5-04.3(5) Producing/Stockpiling Aggregates and RAP**

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

**5-04.3(5)A Vacant**

**5-04.3(6) Mixing**

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.
Special Provisions

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

5-04.3(7) Spreading and Finishing

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

<table>
<thead>
<tr>
<th>Class</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMA Class 1&quot;</td>
<td>0.35 feet</td>
</tr>
<tr>
<td>HMA Class ¾&quot; and HMA Class ½&quot; wearing course</td>
<td>0.30 feet</td>
</tr>
<tr>
<td>HMA Class ½&quot; other courses</td>
<td>0.35 feet</td>
</tr>
<tr>
<td>HMA Class ⅜&quot;</td>
<td>0.15 feet</td>
</tr>
</tbody>
</table>

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

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

(******)

Section 5-04.3(7) is supplemented with:

All cast off rock from raking shall be removed prior to compaction of final HMA lift.

(July 18, 2018 APWA GSP)

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

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

No paving shall begin prior to Contracting Agency approval of the Contractor provided mix design.

(July 18, 2018 APWA GSP)
5-04.3(9) HMA Mixture Acceptance

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

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

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

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

HMA Tolerances and Adjustments

1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows:

   For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2

<table>
<thead>
<tr>
<th>Property</th>
<th>Non-Statistical Evaluation</th>
<th>Commercial Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Binder</td>
<td>+/- 0.5%</td>
<td>+/- 0.7%</td>
</tr>
<tr>
<td>Air Voids, Va</td>
<td>2.5% min. and 5.5% max</td>
<td>N/A</td>
</tr>
</tbody>
</table>

   For Aggregates in the mixture:

   a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

<table>
<thead>
<tr>
<th>Aggregate Percent Passing</th>
<th>Non-Statistical Evaluation</th>
<th>Commercial Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1″, ¾″, ½″, and 3/8″ sieves</td>
<td>+/- 6%</td>
<td>+/- 8%</td>
</tr>
<tr>
<td>No. 4 sieve</td>
<td>+/-6%</td>
<td>+/- 8%</td>
</tr>
<tr>
<td>No. 8 Sieve</td>
<td>+/- 6%</td>
<td>+/- 8%</td>
</tr>
<tr>
<td>No. 200 sieve</td>
<td>+/- 2.0%</td>
<td>+/- 3.0%</td>
</tr>
</tbody>
</table>

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

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

   a. **Aggregates** – 2 percent for the aggregate passing the 1½″, 1″, ¾″, ½″, ¼″, and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate
passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).

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

5-04.3(9)A Vacant

5-04.3(9)B Vacant

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

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

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

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

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

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

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASHTO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall be tested.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer’s discretion.
- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

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

Testing of HMA for compliance of Va will at the option of the Contracting Agency. If tested, compliance of Va will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.
Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Factor “f”</th>
</tr>
</thead>
<tbody>
<tr>
<td>All aggregate passing: 1¼&quot;, 1&quot;, ¾&quot;, ½&quot;, ⅜&quot; and No.4 sieves</td>
<td>2</td>
</tr>
<tr>
<td>All aggregate passing No. 8 sieve</td>
<td>15</td>
</tr>
<tr>
<td>All aggregate passing No. 200 sieve</td>
<td>20</td>
</tr>
<tr>
<td>Asphalt binder</td>
<td>40</td>
</tr>
<tr>
<td>Air Voids (Va) (where applicable)</td>
<td>20</td>
</tr>
</tbody>
</table>

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

5-04.3(9)C5 Vacant

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

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

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

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

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

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

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

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

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

5-04.3(10) HMA Compaction Acceptance

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

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

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

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot shall be equal to one day’s production or 400 tons, whichever is less except that the final sublot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per sublot per WSDOT T 738.

The sublot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor’s request after the Engineer is satisfied that material conforming to the Specifications can be produced.
HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

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

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

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

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

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

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

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

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

5-04.3(11)B Rejection by Contractor

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

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

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

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

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

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

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

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

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

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

1. When the Composite Pay Factor (CPF) of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or

2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or

3. When either the PF_i for any constituent or the CPF of a lot in progress is less than 0.75.

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

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

5-04.3(12) Joints

5-04.3(12)A  HMA Joints

5-04.3(12)A1  Transverse Joints

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

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

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

(******)

Section 5-04.3(12)A1 is supplemented with:

All transverse (butt) joints shall be milled to the full overlay depth.
Longitudinal Joints

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

Section 5-04.3(12)A2 is supplemented with:

All longitudinal cold joints shall be sealed after paving activities.

Bridge Paving Joint Seals

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

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

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

Paved Panel Joint Seal

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

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

Surface Smoothness

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

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

1. Removal of material from high places by grinding with an approved grinding machine, or
2. Removal and replacement of the wearing course of HMA, or
3. By other method approved by the Engineer.
Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

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

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

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

5-04.3(14) Planing (Milling) Bituminous Pavement

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

Locations of existing surfacing to be planed are as shown in the Drawings.

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

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

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

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

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

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

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

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

Prior to start of planing operations, Contractor shall install inlet protection (catch basin inserts) in all catch basins and other storm drainage inlets within the area of the Work. Streets being planed shall be swept with a mechanical type pickup machine throughout the course of planing operations and shall be left clean of all planing debris at the end of each Working Day. Planing debris shall not be allowed to be deposited into catch basins.

Planing shall not occur adjacent to new concrete with less than seven (7) days cure time. Concrete damaged as a result of the Contractor’s operations shall be replaced at the Contractor’s expense regardless of curing time.

Prior to opening to traffic, any delaminating of the existing asphalt pavement shall be removed from the site and the resulting voids shall be patched with HMA.

The planing operation shall not precede the asphalt overlay by more than seven (7) calendar days.

If pavement repair activities are scheduled after the planing operations, the planing operations shall not precede the pavement repair activities by more than seven (7) calendar days and the asphalt overlay shall occur no more than seven (7) calendar days after pavement repairs are completed.

The Contractor shall remove existing asphalt concrete from the top of the gutter pan and from the face of gutter lip. The Contractor shall not damage the surfacing to remain in place or the gutter lips during the planing operation. Damaged gutter lips with spalls in excess of 1-in deep by 3-in long shall be replaced at the Contractor’s expense prior to paving.

At cross streets within the limits of the Work, Planing Bituminous Pavement shall continue in a straight line from curb line to curb line parallel to the direction of the Work.

The Contractor shall lower utility covers prior to planning operations. If there are any existing utility covers that are unable to be lowered prior to planning operations, the Contractor shall provide for safe vehicular travel over those manholes, valve boxes, etc. until placement of the asphalt overlay.

Planing Bituminous Pavement – Full Width

If the depth of the full-width plane is thinner than the proposed overlay thickness, the depth of the full-width plane shall increase at all curb and gutter and butt joint locations to a depth equal to the proposed overlay depth to allow for the proposed overlay to match into existing grades. The additional depth required along the curb and gutter and at butt joint locations shall be incidental to the cost of the full-width planing bid item.

The planing of butt joints in full-width planning areas will be considered incidental to the Planing Bituminous Pavement – Full Width and will not be measured.

Prior to start of any planing operations, Contractor shall trim all low-lying tree limbs in order to provide adequate clearance for the paving operation and any traffic detours that are routed under the tree canopy. All trimming shall be performed by a certified arborist hired by the Contractor. Only those limbs that will interfere with project construction activities and detoured traffic shall be trimmed. It is the Contractor’s responsibility to ensure the existing trees are not damaged due to construction activities. Trimming shall be incidental to planing activities.
**5-04.3(14)A Pre-Planing Metal Detection Check**

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

Should such metal be identified, promptly notify the Engineer.

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

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

**5-04.3(14)B Paving and Planing under Traffic**

**5-04.3(14)B1 General**

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

1. **Intersections:**
   a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure, must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).
   
   b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.
   
   c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.
   
   d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.
   
   e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.

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

3. **Permanent pavement marking must comply with Section 8-22.**
5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan

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

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

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

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

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

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

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

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

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

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

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

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

9. A copy of the approved Mix Designs.

10. Tonnage of HMA to be placed each day.

11. Approximate times and days for starting and ending daily operations.
5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day’s operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, Metro transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day’s operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

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

2. Paving – additional topics:
   a. When to start applying tack and coordinating with paving.
   b. Types of equipment and numbers of each type equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type equipment as it relates to meeting Specification requirements.
   c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are distinguished if more than one
JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.

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

e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

5-04.3(16) HMA Road Approaches

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

(******)

5-04.3(22) HMA Sidewalk Transition

Where shown in the Plans, the Contractor shall provide HMA sidewalk transitions conforming to the Plans. The slope of the HMA sidewalk transition shall not exceed 8.0% and its cross-slope shall not exceed 1.5%. The sidewalk transition shall be placed, shaped, and compacted by hand or by other method approved by the Engineer. This sidewalk transition shall be constructed with Class ½-inch HMA or Commercial HMA.

The pavement surface shall be dry and free from debris prior to installation of the sidewalk transition. Immediately prior to placing the sidewalk transition, a tack coat of asphalt shall be applied to the surface upon which the sidewalk transition is to be placed.

The Contractor shall minimize handwork of HMA used to construct the sidewalk transition to reduce the aggregate segregation in the HMA.

(July 18, 2018 APWA GSP)

5-04.4 Measurement

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Roadway cores will be measured per each for the number of cores taken.

Preparation of untreated roadway will be measured by the mile once along the centerline of the main line Roadway. No additional measurement will be made for ramps, Auxiliary Lanes, service roads, Frontage Roads, or Shoulders. Measurement will be to the nearest 0.01 mile.

Soil residual herbicide will be measured by the mile for the stated width to the nearest 0.01 mile or by the square yard, whichever is designated in the Proposal.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Asphalt for prime coat will be measured by the ton in accordance with Section 1-09.2.

Prime coat aggregate will be measured by the cubic yard, truck measure, or by the ton, whichever is designated in the Proposal.
Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.

Longitudinal joint seals between the HMA and cement concrete pavement will be measured by the linear foot along the line and slope of the completed joint seal.

Planing bituminous pavement will be measured by the square yard.

Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.

Water will be measured by the M gallon as provided in Section 2-07.4.

Section 5-04.4 is supplemented with the following:

Pavement Repair Excavation Incl. Haul will be measured by the square yard of surface marked prior to excavation.

Unscheduled Pavement Repair will be paid for by force account as specified in Section 1-09.6. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the total bid by the Contractor.

Planing Bituminous Pavement – Full Width – XX" Depth will be measured by the square yard, and include only full-width planing.

HMA for Sidewalk Transition will be measured per ton

Remove and Replace HMA Speed Hump will be measured per each speed hump removed and replaced.

Longitudinal and Transverse joint seals between old and new HMA pavement will not be measured.

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

(July 18, 2018 APWA GSP)

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"HMA Cl. ___ PG __", per ton.

"HMA for Approach Cl. ___ PG __", per ton.

"HMA for Preleveling Cl. ___ PG __", per ton.

"HMA for Pavement Repair Cl. ___ PG __", per ton.

"Commercial HMA", per ton.

The unit Contract price per ton for "HMA Cl. ___ PG __", "HMA for Approach Cl. ___ PG __", "HMA for Preleveling Cl. ___ PG __", "HMA for Pavement Repair Cl. ___ PG __", and "Commercial HMA" shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

"Preparation of Untreated Roadway", per mile.

The unit Contract price per mile for "Preparation of Untreated Roadway" shall be full pay for all Work described under 5-04.3(4), with the exception, however, that all costs involved in patching the
Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ___ PG ___” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Preparation of Existing Paved Surfaces”, per mile.

The unit Contract Price for “Preparation of Existing Paved Surfaces” shall be full pay for all Work described under Section 5-04.3(4) with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ___ PG ___” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Crack Sealing”, by force account.

“Crack Sealing” will be paid for by force account as specified in Section 1-09.6. For the purpose of providing a common Proposal for all Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the total Bid by the Contractor.

“Pavement Repair Excavation Incl. Haul”, per square yard.

The unit Contract price per square yard for “Pavement Repair Excavation Incl. Haul” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4) with the exception, however, that all costs involved in the placement of HMA shall be included in the unit Contract price per ton for “HMA for Pavement Repair Cl. ___ PG ___”, per ton.

“Asphalt for Prime Coat”, per ton.

The unit Contract price per ton for “Asphalt for Prime Coat” shall be full payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).

“Prime Coat Agg.”, per cubic yard, or per ton.

The unit Contract price per cubic yard or per ton for “Prime Coat Agg.” shall be full pay for furnishing, loading, and hauling aggregate to the place of deposit and spreading the aggregate in the quantities required by the Engineer.

“Asphalt for Fog Seal”, per ton.

Payment for “Asphalt for Fog Seal” is described in Section 5-02.5.

“Longitudinal Joint Seal”, per linear foot.

The unit Contract price per linear foot for “Longitudinal Joint Seal” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(12).

“Planing Bituminous Pavement”, per square yard.

The unit Contract price per square yard for “Planing Bituminous Pavement” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14).

“Temporary Pavement Marking”, per linear foot.

Payment for “Temporary Pavement Marking” is described in Section 8-23.5.

“Water”, per M gallon.
Payment for “Water” is described in Section 2-07.5.

“Job Mix Compliance Price Adjustment”, by calculation.

“Job Mix Compliance Price Adjustment” will be calculated and paid for as described in Section 5-04.3(9)C6.

“Compaction Price Adjustment”, by calculation.

“Compaction Price Adjustment” will be calculated and paid for as described in Section 5-04..3(10)D3.

“Roadway Core”, per each.

The Contractor’s costs for all other Work associated with the coring (e.g., traffic control) shall be incidental and included within the unit Bid price per each and no additional payments will be made.

“Cyclic Density Price Adjustment”, by calculation.

“Cyclic Density Price Adjustment” will be calculated and paid for as described in Section 5-04.3(10)B.

(******)
Section 5-04.5 is supplemented with the following:

The unit Contract price per ton for “HMA Cl. ___ PG ___”, “HMA for Approach Cl. ___ PG ___”, “HMA for Preleveling Cl. ___ PG ___”, “HMA for Pavement Repair Cl. ___ PG ___”, “HMA for Sidewalk Transition Cl. ___ PG ___”, and “Commercial HMA” shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this sub-section and which are included in the Proposal.

All costs for asphalt tack coat shall be included in the contract price per ton of the HMA.

“Pavement Repair Excavation Incl. Haul”, per square yard. The unit contract price shall also be full payment for all costs associated with the installation, maintenance and removal of storm drain inlet protection (catch basin inserts) and any and all costs associated with tree trimming required to provide adequate clearance for construction equipment or traffic detours.

“Unscheduled Pavement Repair”, per force account.

“Remove and Replace HMA Speed Hump”, per each

The unit contract price per each for “Remove and Replace HMA Speed Hump” shall be full payment for all costs associated with the removal and disposal of existing speed hump prior to resurfacing of the roadway, and reinstallation of speed hump or speed cushion (Slotted Speed hump) as shown in the Plans and in accordance with City of Kirkland Pre-Approved Plans.

The unit contract price per square yard for “Planing Bituminous Pavement – Full Width – XX” Depth” shall be full payment for all costs incurred to perform the work described in Section 5-04.3(14) including edge full width planing as indicated on the plans. The unit contract price shall also be full payment for all costs associated with the installation, maintenance and removal of storm drain inlet protection (catch basin inserts), additional planing depth required to match into curb and gutter and butt joint locations, and any and all costs associated with tree trimming required to provide adequate clearance for construction equipment or traffic detours.

Longitudinal and Transverse joint seals between old and new HMA pavement is considered incidental to the cost of paving and shall be included in the unit contract price per ton for “HMA Cl. ___ PG ___”.

Special Provisions -89
Asphalt Cost Price Adjustment

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

“HMA Cl. ___ PG ___”

“HMA for Pavement Repair Cl. ___ PG ___”

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

The Contracting Agency will establish the asphalt binder reference cost twice each month and post the information on the Agency website at:

http://www.wsdot.wa.gov/Business/Construction/EscalationClauses.htm

The reference cost will be determined using posted prices furnished by Poten & Partners, Inc. If the selected price source ceases to be available for any reason, then the Contracting Agency will select a substitute price source to establish the reference cost.

The base cost established for this contract is the reference cost posted on the Agency website for the period immediately preceding the bid opening date.

Adjustments will be based on the most current reference cost for Western Washington or Eastern Washington as posted on the Agency website, depending on where the work is performed. For work completed after all authorized working days are used, the adjustment will be based on the posted reference cost during which contract time was exhausted. The adjustment will be calculated as follows:

No adjustment will be made if the reference cost is within 5% of the base cost.

If the reference cost is greater than or equal to 105% of the base cost, then

\[ \text{Adjustment} = (\text{Current Reference Cost} - (1.05 \times \text{Base Cost})) \times (Q \times 0.056) \]

If the reference cost is less than or equal to 95% of the base cost, then

\[ \text{Adjustment} = (\text{Current Reference Cost} - (0.95 \times \text{Base Cost})) \times (Q \times 0.056) \]

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

“Asphalt Cost Price Adjustment”, by calculation.

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

END OF DIVISION 5

Special Provisions -90
DIVISION 7 - DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

(******)
7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.3 Construction Requirements

7-05.3(1) Adjusting Manholes and Catch Basins to Grade

Section 7-05.3(1) is supplemented with the following:

All manholes shall be lowered prior to planning operations. After the manhole has been lowered, the Contractor shall patch the resultant void with cold mix. After paving, all manholes shall be raised to grade.

The contractor shall expect to encounter existing PAMREX/ERGO style manhole covers. PAMREX/ERGO manhole covers have several small cavities, including key holes and hinges. These cavities must remain free of HMA and any other debris in order to remain operational. The contractor shall protect these covers prior to paving to ensure HMA does not enter the cavities. All utility covers and frames, in addition to the PAMREX/ERGO covers, shall be thoroughly cleaned free of HMA or other debris after paving activities are completed.

Catch basins and similar structures shall be brought to finished grades by methods of construction as required in Section 7-05 and City of Kirkland Pre-Approved Plans. Steel risers, bricks or Jet Set are not allowed. Patch pavement with Class G asphalt concrete pavement. Seal joint with PG 58H-22 and dry sand after patching.

The Engineer may direct Contractor to replace existing frame and/or grate and/or cover with new frame/grate/cover. In such instances, the new frame/grate will be furnished by the City and delivered to the job site. The City may elect to have the Contractor replace existing manhole covers with round hinged locking manhole covers and frames provided by the City. Contractor shall install the round hinged locking covers and frames per CK-D.18A/CK-S.16A and provide risers as necessary to adjust the covers to grade. No additional compensation will be made to the Contractor for replacing frames/grates/cover with City provided frames/grates/cover or for providing additional risers for adjustment.

7-05.4 Measurement

Adjustment of manholes, either by raising or lowering, will be measured per each.

Adjustment of catch basins, either by raising or lowering will be measured per each.

7-05.5 Payment

“Adjust Manhole – Lowering”, will be measured per each.

The unit Contract Price for “Adjust Manhole – Lowering” shall be full pay for all costs necessary to make the lowering adjustment, including cold mix asphalt.

“Adjust Catch Basin – Lowering”, will be measured per each.

The unit Contract Price for “Adjust Catch Basin – Lowering” shall be full pay for all costs necessary to make the lowering adjustment, including cold mix asphalt.

“Adjust Manhole – Raising”, will be measured per each.

The unit Contract Price for “Adjust Manhole – Raising” shall be full pay for all costs necessary to make the raising adjustment, including the restoration of adjacent areas in a manner acceptable to the Engineer.

“Adjust Catch Basin– Raising”, will be measured per each.
The unit Contract Price for “Adjust Catch Basin – Raising” shall be full pay for all costs necessary to make the raising adjustment, including the restoration of adjacent areas in a manner acceptable to the Engineer.

(******)

7-07 CLEANSING EXISTING DRAINAGE STRUCTURES

7-07.3 Construction Requirements
Section 7-07.3 is supplemented with the following:

All catch basins, manholes, storm ditches, and inlet structures shall be kept clean of all debris associated with grinding, paving, or other operations associated with the work. Existing drainage facilities containing debris from the Contractor's operations shall be cleaned prior to final acceptance of the work.

7-07.5 Payment
Section 7-07.5 is deleted in its entirety and replaced with the following:

Cleaning existing drainage structures shall be incidental to the contract price of other items in the contract.

(******)

7-12 VALVES FOR WATER MAINS

7-12.3 Construction Requirements
Section 7-12.3 is supplemented with the following:

Water Valve Box Adjustment - Lowering - Water valve boxes shall be lowered prior to planing operations. All water valve boxes located in the City of Kirkland water service area shall receive temporary paving rings/steel risers after being lowered to fill the resultant void and to allow continuous emergency access to the valves. All paving rings/steel risers shall be removed prior to final valve box adjustment (raising). Voids created by lowering on all water valve boxes located outside the City of Kirkland water service area shall be patched with cold mix.

Water Valve Box Adjustment - Raising - Water valve boxes shall be brought to finished grade by methods of construction as required in Section 7-12 and Kirkland Pre-Approved Plan No. R.02. Water valve box tops and lids shall be replaced as necessary. Multiple steel risers are not allowed for water valve box adjustments. Water valve boxes shall be adjusted in a manner where the “ears” point in the direction of flow of the main. If the direction of flow of the main cannot be determined in the field, the Contractor shall notify the Inspector and coordinate with the City Water Department, Northshore Utility District, or Woodinville Water District to determine the direction of flow. Patch pavement with Class G asphalt concrete pavement. Seal with PG 58H-22 and dry sand after patching.

Water Valve Box Replacement – As directed by the Project Engineer, several existing water valve boxes shall be replaced with locking valve boxes and brought to finished grade by methods of construction as required in Section 7-12 and Kirkland Pre-Approved Plan No. R.02. Water valve boxes requiring replacement are noted on the plans and the new boxes shall be Olympic Foundry 940 DS style with allen screw locks as shown in Appendix A, or approved equal. Steel risers are not allowed for water valve box adjustments. Water valve boxes shall be replaced in a manner where the “ears” point in the direction of flow of the main. If the direction of flow of the main cannot be determined in the field, the Contractor shall notify the Inspector and coordinate with the City Water Department, Northshore Utility District, or Woodinville Water District to determine the direction of flow. Patch pavement with Class G asphalt concrete pavement. Seal with PG 58H-22 and dry sand after patching.
The Contractor shall notify the Inspector if the direction of flow of the main cannot be determined prior to adjusting or replacing the valve box. The Inspector can coordinate with the City Water Department to determine the flow direction.

**The City Water Department shall have continuous emergency access to all water valves within the City of Kirkland water service area.** Normal operational access to water valves shall be made available during holiday non-work hours, or by the end of work hours each Friday. With exception to previous conditions, the contractor shall restore normal operational access to water valves within two working days after paving.

After final adjustment, all water valve lids within the project limits shall be painted with blue enamel. Paint shall be equal to Kelly Moore DTM 5780 gloss enamel - Safety Blue, or approved equal. All painting of the water valve lids shall be incidental to the cost of adjusting or replacing the water valve boxes.

All water valve boxes shall be kept clean of all debris associated with grinding, paving, or other operations associated with the work. Existing valve boxes containing debris from the Contractors operations shall be cleaned prior to final acceptance of the work.

### 7-12.4 Measurement

Section 7-12.4 is supplemented with the following:

- Adjustment of water valve boxes, either by raising or lowering, will be measured per each.
- Replacement of water valve box will be measured per each.

*Painting of the water valve box lids is incidental to the valve box adjustment or replacement and will not be measured.*

### 7-12.5 Payment

Section 7-12.5 is supplemented with the following:

- Payment will be made for the following bid item(s):
  - "Adjust Water Valve Box - Lowering", per each.
  - The unit Contract price for “Adjust Water Valve Box – Lowering” shall be full pay for all costs necessary to make the lowering adjustment, including any paving rings or cold mix asphalt.
  - “Adjust Water Valve Box - Raising”, per each.
  - The unit Contract Price for “Adjust Water Valve Box – Raising” shall be full pay for all costs necessary to make the raising adjustment, including the restoration of adjacent areas in a manner acceptable to the Engineer.
  - “Replace Water Valve Box”, per each.
  - The unit Contract Price for “Replace Water Valve Box” shall be full pay for all costs necessary to make the raising adjustment, including the new locking water valve box assembly and restoration of adjacent areas in a manner acceptable to the Engineer.

*No payment will be made for painting the water valve box lids.*

(******)

### 7-15 SERVICE CONNECTIONS

#### 7-15.1 Description

Section 7-15.1 is supplemented with the following:
Water meter boxes damaged by the Contractor’s activity shall be replaced at the Contractor’s expense. Where noted on the plans, water meter boxes shall be replaced with current City of Kirkland pre-approved boxes (as shown in the table below), and brought to finished grade at no additional cost to the City. Water meter boxes shall conform with City of Kirkland standards. Meter boxes located in sidewalks or roadways shall be concrete with steel traffic bearing lid. In locations where water meter boxes and risers are located within sidewalk, lids shall be replaced with non-slip lids meeting the requirements of the Americans with Disabilities Act.

7-15.4 Measurement
Section 7-15.4 is supplemented with the following:

Measurement of water meter box replacement will be made per each.

7-15.5 Payment
Section 7-15.5 is supplemented with the following:

Payment will be made for the following bid item(s):

“Replace Water Meter Box”, per each.

END OF DIVISION 7
DIVISION 8 – MISCELLANEOUS CONSTRUCTION

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

(June 20, 2017 COK GSP)

8-01.1 Description

Section 8-01.1 is supplemented with the following:

Implementation of appropriate TESC BMP’s at the appropriate construction phases is very important to prevent siltation of the subgrade, aggregate courses, and final permeable pavement. The Contractor shall install and maintain all temporary and permanent erosion control measures and Best Management Practices (BMPs) in accordance with the Contract Documents, Standard Specifications, Permit Conditions, the Contractors “Stormwater Pollution Prevention Plan” (SWPPP) and as directed by the Engineer prior to clearing, grubbing, or grading or as necessary, as clearing and grading progress. Such measures shall include, but are not necessarily limited to:

- Commercial construction entrances per CK-E.02.
- Quarry Spall outfall pads for temporary erosion control
- Rock, Wattle, Compost sock check dams
- Straw mulch, netting and tackifier
- Concrete wash
- Baker tanks and/or Settling ponds
- Stabilized construction entrance / exit
- Inlet protection on existing and proposed drainage structures
- Reinforced silt fencing
- Plastic Covering
- Temporary pipe slope drains
- Temporary HMA Curb
- Disposal of sediments and materials
- TESC seeding
- Maintenance of BMPs including in the event of emergencies and as weather and field conditions dictate; and also including installation of additional BMPs which may become required as field and weather conditions evolve.
- Street sweeping and Cleaning
- ESC Lead per 8-01 of the Standard Specifications
- All materials, tools and equipment necessary to meet these requirements

The Contractor shall provide erosion control as required for all stockpiled materials at no cost to the Contracting Agency. The Engineer, in the event of an emergency, and as weather and field conditions dictate, may require additional erosion controls and BMPs.

Site Specific BMPs and SWPPP Plan

Temporary Erosion / Water Pollution Control notes and performance criteria are noted in the Contract Documents. The Contractor shall submit his or her own Storm Water Pollution Prevention Plan (SWPPP) to the Contracting Agency for review and approval prior to the commencement of clearing, grubbing, or grading activities.

Water quality testing and discharge volume reporting required by the project permits shall be performed by the Contractor and is a condition of approval of the SWPPP. The reporting data shall be provided to the Engineer as soon as practical, at regular intervals and prior to reporting deadlines established in the permits. The Contractor will provide a copy of the reporting information within 24 hours of a request to do so by the Engineer. All costs to perform these reporting requirements are to be included in the lump sum contract price for “Erosion/Water Pollution Control”.

Special Provisions -95
(June 20, 2017 COK GSP)
8-01.3 Construction Requirements

Section 8-01.3 is supplemented with the following:

The Contractor shall bear sole responsibility for damage to completed portions of the project and to property located off the project caused by erosion, siltation, runoff, or other related items during the construction of the project. The Contractor shall also bear sole responsibility for any pollution of rivers, streams, groundwater, or other water that may occur as a result of construction operations.

Any area not covered with established, stable vegetation where no further work is anticipated for a period of 15 days, shall be immediately stabilized with the approved erosion and sedimentation control methods (e.g., seeding and mulching, straw). Where seeding for temporary erosion control is required, fast germinating grasses shall be applied at an appropriate rate (e.g., perennial rye applied at approximately 80 pounds per acre).

At no time shall more than 1 foot of sediment be allowed to accumulate within a catch basin. All catch basins and conveyance lines shall be cleaned at a time designated by the Contracting Agency Construction Inspector.

The cleaning operation shall not flush sediment-laden water into the downstream system. The cleaning shall be conducted using an approved vacuum truck capable of jet rodding the lines. The collection and disposal of the sediment shall be the responsibility of the Contractor at no cost to the Contracting Agency.

8-01.3(1) General

(June 20, 2017 COK GSP)
8-01.3(1)A Submittals

Section 8-01.3(1)A is supplement with the following:

Stormwater Pollution Prevention Plan

The Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Department of Ecology requirements.

The Contractor shall incorporate the SWPPP implementation schedule into the Contractor’s progress schedule. The SWPPP and implementation schedule shall be submitted in accordance with Sections 1-05.3 and 1-08.3.

In addition, the SWPPP shall outline the procedures to be used to prevent high pH stormwater. The plan shall include how the pH of the water will be maintained between pH 6.5 and pH 8.5 prior to being discharged from the project or entering surface waters. Prior to beginning any concrete or grinding work, the Contractor shall submit the plan, for the Engineer’s review and approval.

The Ecology template can be found at the following link:

http://www.ecy.wa.gov/programs/wq/stormwater/construction/

The SWPPP is considered a “living” document that shall be revised to account for additional erosion control/pollution prevention BMPs as they become necessary and are implemented in the field during project construction. A copy of the most current SWPPP shall remain on-site at all times and an additional copy shall be forwarded to the Engineer. At the Contractor’s preference, revisions to the SWPPP may be forwarded to the Engineer rather than submitting a complete document. Revisions to the SWPPP may be kept on-site in a file along with the original SWPPP document.
(June 20, 2017 COK GSP)
8-01.3(1)B Erosion and Sediment Control (ESC) Lead

Supplement this the second paragraph with the following:

3. Inspecting all on-site erosion and sediment control BMPs at least once every five working days and within 24 hours of every runoff event. A SWPPP Inspection report or form shall be prepared for each inspection and shall be included in the SWPPP file. A copy of each SWPPP Inspection report or form shall be submitted to the Engineer no later than the end of the next working day following the inspection. The report or form shall include, but not be limited to the following:
   a. When, where, and how BMPs were installed, maintained, modified, and removed.
   b. Observations of BMP effectiveness and proper placement.
   c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal SWPPP inadequacies.
   d. Approximate amount of precipitation since last inspection and when last inspection was performed.

4. Updating and maintaining a SWPPP file on site that includes, but is not limited to the following:
   a. SWPPP Inspection Reports or Forms.
   b. SWPPP narrative.
   c. Other applicable permits.

(June 20, 2017 COK GSP)
8-01.3(1)C Water Management

Section 8-01.3(1)C is supplemented with the following:

The Contractor will be responsible for meeting the SWPPP requirements.

The Bid Item “Erosion/Water Pollution Control” shall include the cost of providing temporary detention/retention facilities as illustrated in the Contractor’s SWPPP Plan as well as modifications, additions and removals of such facility as dictated by the Contractor’s sequence of work and may include, but are not limited to:

1. Temporary detention/retention facilities such as ponds, Baker Tanks, or other facilities.
2. If any permanent stormwater facilities are utilized, such as the detention vault, for SWPPP compliance, the Contractor shall remove accumulated sediment and clean the facility prior to final acceptance at no additional cost to the Contracting Agency.
3. Temporary facilities such as wheel wash stations or similar.
4. Temporary construction entrances.

No additional compensation shall be made for construction, alteration, removal, maintenance, and any additional requirements necessary for “Erosion/Water Pollution Control”. No additional compensation shall be made for conflicts with existing or proposed improvements or construction sequencing of work when facilities are utilized to meet permit requirements.

(******)
8-01.5 Payment

Section 8-01.5 is deleted in its entirety and replaced with the following:

Payment will be made for the following bid item(s):

“Erosion/Water Pollution Control”, by force account as provided in Section 1-09.6.

Installation, maintenance, and removal of erosion and water pollution control devices (except inlet protection as provided in Section 5-04)), including removal and disposal of sediment, stabilization,
and rehabilitation of soil disturbed by these activities, and any additional work deemed necessary by the Engineer to control erosion and water pollution will be paid by force account under the item “Erosion/Water Pollution Control”.

(******)
8-02 ROADSIDE RESTORATION

8-02.3 Construction Requirements

8-02.3(9) Pruning, Staking, Guying and Wrapping

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

The contractor shall ensure that proper pruning techniques are used if removal of canopy material is necessary to allow access for equipment or re-routing of vehicular traffic.

All costs associated with pruning and staking trees shall be considered incidental to and included in the contract price for planing bituminous pavement.

8-02.3(9A) Root Trimming and Barrier Placement

Section 8-02.3(9A) is a new section.

Hand digging within the root zone is required in order to expose roots with minimal damage. The root zone is defined as the area of ground within the drip line of the tree and extending to a depth of 24 inches. Tree roots over 12 inches below grade may be left in place. If severing of roots cannot be avoided, the contractor shall perform root trimming as required. The Contractor shall hire a Certified Arborist to perform the root trimming if roots larger than 3 inches in diameter are exposed and require trimming. A sharp tool such as pruning shears, loppers, or a hand saw shall be used to produce a clean cut in order to reduce wound size and encourage healing. The Inspector shall observe all root trimming activities.

After root trimming activities are completed crushed surfacing top course shall be placed and compacted per plan.

Root barriers may be used as recommended along the edge of sidewalk or back edge of curbs to protect the proposed curb and sidewalk from root damage. Root barriers shall never be used around the entire circumference of the root zone. All root barrier shall be installed in accordance with the manufacturer’s instructions. Root Barriers shall consist of 0.080” thick (min.) polypropylene sheet(s) placed against the excavated and exposed root mass. The barrier shall be installed so that it is flush with the finish grade of the landscaped area and extends to a minimum depth of 24 inches.

If roots are exposed overnight, mulch and water tree roots following excavation.

If roots are encountered that require trimming by a Certified Arborist, the Contractor shall submit the company information (company name, address, phone number, name of arborist, etc.) of the Certified Arborist or Company that will be performing the root inspection, trimming and barrier placement.

(******)

8-02.4 Measurement

Section 8-02.4 is supplemented with the following:

Landscape restoration shall be measured by the square foot and shall include all labor and materials associated with completing the landscaping as described within these specifications.

All work associated with arborist evaluation of roots, trimming roots in excess of 3 inches in diameter and installing root barriers will be paid for by force account as specified in Section 1-09.6 under the bid item for “Property Restoration”.

Special Provisions -98
All work associated with trimming roots less than 3 inches in diameter will not be measured.

8-02.5 Payment

Section 8-02.5 is supplemented with the following:

“Landscape Restoration”, per square foot.

Trimming roots in excess of 3 inches in diameter and root barrier placement will be paid for by the “Property Restoration” bid item.

Trimming roots less than 3 inches in diameter and hand digging around root zones will be considered incidental to the cost of removal of structures and obstructions.

(*****)

8-02 IRRIGATION SYSTEMS

8-03.1 Description

Supplement this Section with the following:

Work shall include locating existing private irrigation systems located within the right-of-way or improvement easements, cutting and capping and/or rerouting the irrigation lines at the right-of-way or easement line, and removing the irrigation piping and appurtenances from the City right-of-way or obtained easement.

Irrigation line and appurtenances shall be salvaged and returned to the owner of the adjacent property.

The Contractor shall minimize the impacts to these facilities to the maximum extent possible. The Contractor shall inform the Engineer of all proposed modifications to the existing irrigation systems prior to beginning the modifications.

8-03.2 Materials

Supplement this Section with the following:

References to the use of galvanized pipe in the Standard Specifications and Amendments shall be replaced with Schedule 80 PVC or other Engineer accepted pipe material.

8-03.3 Construction Requirements

Supplement this Section with the following:

All work shall be in strict conformance with the City of Kirkland Water System and Sewer Standards, together with the Plans, details and manufacturer’s written information regarding recommended installation procedures.

Private irrigation systems that have been damaged during construction activities shall be repaired or replaced within 5 working days. The Contractor shall be liable for any damage due to irrigation facilities damaged by his operations and shall repair such damaged facilities to an "equal or better than" original condition. This work will include, but not be limited to, cutting and capping existing pipe, relocating existing risers and sprinkler heads new pipe heads and connections, and testing of the system.

Prior to disturbance of any irrigation system the Contractor shall make arrangements with the property owner to have the existing system turned on and tested. Deficiencies found shall be reported to the Engineer prior to disturbance of the existing system.

Existing systems shall be re-tested after modifications have been made in the presence of the Engineer. The Engineer must approve the private irrigation system modification prior to acceptance of the work.
8-03.4 Measurement

Supplement this Section with the following:

No specific unit of measurement will be made for "Modifying Existing Irrigation Systems" which shall be per force account.

8-03.5 Payment

Supplement this Section with the following:

"Modifying Existing Irrigation Systems", force account.

"Modifying Existing Irrigation Systems" will be paid by force account as provided in section 1-09.6 of the Standard Specifications and herein. Costs incurred during removal of existing private irrigation systems within the right-of-way, reconfiguring the existing system to ensure that it remains operational and functions properly, and coordinating with the City Construction Inspector to verify that the remaining system is still operational shall be paid by force account.

For the purposes of Bidding equity, the City has established an estimated quantity for this item of work. Actual payment for this work shall be made only for the actual amount of work performed as authorized and deemed necessary by the Engineer, and may differ from the estimated amount provided in the Proposal.

(******)

8-04 CURBS, GUTTERS, AND SPILLWAYS

Section 8-04.1 is supplemented with the following:

8-04.3 Construction Requirements

HMA Drainage Berm

HMA drainage berm conforming to the Plans shall be placed, shaped, and compacted true to line and grade by hand or by other method approved by the Engineer. HMA drainage berm shall be constructed with Class ½” HMA or Commercial HMA.

The pavement surface shall be dry and free from debris prior to installation of the berm. Immediately prior to placing the berm, a tack coat of asphalt shall be applied to the surface upon which the berm is to be placed.

Berms shall be a minimum of 3 inches in height. The Contractor shall minimize handwork of HMA used to construct the berm to reduce the aggregate segregation in the HMA. The berms shall be sealed by the Contractor if excess handwork caused aggregate segregation leaving the berms susceptible to premature deterioration.

HMA Thickened Edge

An HMA thickened edge, conforming to the Plans, shall be placed as shown in the Plans or as directed by the Engineer.

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways

Section 8-04.3(1) is supplemented with the following:

Where shown in the Plans or where directed by the Engineer, the Contractor shall make necessary connections to existing curb and gutter. Care shall be taken in removing the existing extruded curb and curb and gutter so as not to damage the adjacent portion(s) to remain in place. All removals shall be accomplished by making a neat, vertical sawcut at the boundaries of the areas to be removed. Any existing improvements damaged due to the Contractor’s operations shall be replaced at the Contractor’s expense.
All materials associated with the removal of existing curb and subgrade/base preparation shall become the property of the Contractor and shall be disposed of at a legal disposal site obtained by the Contractor.

The subgrade shall be prepared and crushed surfacing placed in accordance with City of Kirkland Standard Plans. The base for curb shall be compacted to 95 percent density at optimum moisture content (Modified Proctor) before placing the curb. Prior to preparing the subgrade, all roots that are within the limits of the sidewalk shall be removed.

New curb sections shall be constructed to match the grade and shape of the adjacent curb to remain and the adjacent asphalt concrete roadway. Where shown in the Plans, the curb shall be depressed for the installation of curb ramps and driveways.

Curb, curb and gutter, or gutter sections with surfaces damaged by polyethylene sheeting, placement during inclement weather, or vandalized will be removed and replaced at the Contractor's expense.

Concrete shall be air entrained Class 4000. Curbs shall not be poured monolithically with sidewalks.

**8-04.3(1)A Extruded Cement Concrete Curb**

Section 8-04.3(1)A is supplemented with the following:

Extruded Cement Concrete Curb shall be installed per City of Kirkland pre-approved plan CK-R.19 and shall be painted white, or as directed by Project Engineer.

**8-04.4 Measurement**

Section 8-04.4 is supplemented with the following:

- HMA drainage berm will be measured by the linear foot.
- HMA thickened edge will be measured by the linear foot.
- Cement concrete extruded curb will be measured by the linear foot of installed and painted extruded curb.

**8-04.5 Payment**

Section 8-04.5 is supplemented with the following:

Payment will be made for the following bid item(s):

- "HMA Drainage Berm", per linear foot.
- "HMA Thickened Edge", per linear foot.
- "Cement Concrete Extruded Curb", per linear foot.

(******)

**8-03 POTHOLING**

**8-05.1 Description**

Potholing has been included in the Proposal for the use in the determination of the location of existing utilities in advance of the Contractor's operations.
8-05.3 Construction Requirements

The Engineer shall approve all potholing requests from the Contractor prior to potholing. Additionally, the Contractor shall provide potholes at the Engineer's request. The Contractor shall review the utility markings in the field after construction staking has been provided but prior to starting of installation of any utilities or foundations for signal or other electrical equipment.

When potholing is performed the Contractor shall:

1. Receive prior approval from the Engineer for the location of the proposed pothole.
2. Contact on-call utility services prior to performing pot holes.
3. Excavate down to the existing utility.
4. Record the horizontal location by Station and offset and vertical elevation of the found utility.
5. Provide the Engineer a drawing showing the location of the existing utility and location of the proposed utility.

After potholing, the Contractor shall backfill the pothole with Crushed Surfacing Top Course up to pavement subgrade depth unless the Engineer determines that the native material is suitable for backfill.

Should a conflict exist, the Contractor shall notify the Engineer as soon as possible. The Engineer will provide a revised design within five (5) working days upon the receipt of the written notification of a utility conflict.

8-05.4 Measurement

"Potholing" will be measured per each.

8-05.5 Payment

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

"Potholing", per each.

The unit Contract price for "Potholing" per each shall be full compensation for all equipment, tools, labor, and materials required to complete the potholing including but not limited to review of the site, recording locations of existing utilities in relationship to the proposed utilities, excavation, trench backfill with crushed surfacing top course and compaction, and temporary restoration of the excavated area. This unit price shall also include the cost for rescheduling work as required to allow the Engineer up to five (5) working days to issue any design modifications that may be necessary. For the purposes of bidding equality, the Contracting Agency has furnished an estimated quantity for this item of work. Actual payment for this work, if necessary, will be made only for the actual amount of work performed as authorized and deemed necessary by the Engineer and may differ greatly from the estimated amount provided.

(******)

8-07 PRECAST TRAFFIC CURB AND BLOCK TRAFFIC CURB

8-07.3 Construction Requirements

Section 8-07.3 is supplemented with the following:

All Type C and Precast Dual Faced Sloped Mountable Curb installed within the roadway shall be recessed below the pavement per CK-R.19A.

8-07.4 Measurement

Section 8-07.4 is supplemented with the following:
Painted curb will be measured by the lineal foot of marking installed.

8-07.5 Payment

Section 8-07.5 is supplemented with the following:

“Painted Curb”, per lineal foot.

(******)

8-09 RAISED PAVEMENT MARKERS

8-09.1 Description

Section 8-09.1 is supplemented with the following:

This work shall consist of furnishing and installing raised pavement markers (RPMs) at locations designated in the Plans or as directed by the Engineer.

Following placement of the asphalt concrete overlay, the Contractor shall furnish and install BLUE, Type 2B, RPMs perpendicular to each fire hydrant in the interior channelization of the adjacent lane.

Following placement of the asphalt concrete overlay, the Contractor shall furnish and install WHITE, Type 2, RPMs at the end of each crosswalk line as directed or as shown on plans. RPMs shall not be placed in the bike lane.

8-09.5 Payment

Section 8-09.5 is supplemented with the following:

Payment will be made for the following bid item(s):

“Raised Pavement Marker, Type 2B”, per hundred.

(******)

8-13 MONUMENT CASES

8-13.1 Description

Section 8-13.1 is supplemented with the following:

This work shall consist of lowering monument cases prior to asphalt overlay activities and raising monument cases to grade following placement of asphalt overlay.

8-13.3 Construction Requirements

Section 8-13.3 is supplemented with the following:

Adjustment of Monument Cases - Lowering

Prior to planing operations, the Contractor shall vertically adjust the monument case and cover below the limits for planing bituminous pavement. After the monument case and cover have been lowered, the Contractor shall patch the resultant void with cold mix asphalt.

Adjustment of Monument Cases - Raising

The Contractor shall adjust monument cases to finish grade in accordance with City of Kirkland Pre-Approved Plan CK-R.03. The use of riser rings in lieu of adjustment will not be allowed.
If the monument is displaced by the Contractor's operations the Contractor shall remove and replace the case and coordinate reestablishment of the monument by a Professional Land Surveyor (PLS) at no additional cost to the Contracting Agency.

8-13.4 Measurement
Section 8-13.4 is supplemented with the following:

Adjustment of monument cases, either by raising or lowering, will be measured per each.

8-13.5 Payment
Section 8-13.5 is supplemented with the following:

Payment will be made in accordance with Section 1-04.1 for the following bid item(s):

“Adjust Monument Case and Cover - Lowering”, per each.

The unit Contract price for “Adjust Monument Case and Cover – Lowering” shall be full pay for all costs necessary to make the lowering adjustment, including cold mix asphalt used to fill the resultant void created by the lowering adjustment.

“Adjust Monument Case and Cover - Raising”, per each.

The unit Cost price for “Adjust Monument Case and Cover - Raising” shall be full pay for all costs necessary to make the raising adjustment including backfilling and pavement patching.

(******)
8-14 CEMENT CONCRETE SIDEWALK

8-14.1 Description
Section 8-14.1 is supplemented with the following:

The work described in this section shall consist of construction of new cement concrete sidewalk, removal and replacement of cement concrete sidewalk, and curb ramps.

8-14.3 Construction Requirements
Section 8-14.3 is supplemented with the following:

Where shown in the Plans or where directed by the Engineer, the Contractor shall make necessary connections to the existing sidewalk. Care shall be taken in removing the sidewalk to be replaced so as not to damage the adjacent portion(s) to remain in place. All removal shall be accomplished by making a neat, vertical sawcut at the boundaries of the areas to be removed. Any existing improvements damaged due to the Contractor's operations shall be replaced at the Contractor's expense. All root material found to be growing under the sidewalk shall be removed prior to preparing the base material.

All materials associated with the removal of existing sidewalk and subgrade/base preparation shall become the property of the Contractor and shall be disposed of at a legal disposal site obtained by the Contractor.

Sidewalks and curb ramps shall be constructed in accordance with WSDOT Standard Plans as specified. Concrete shall be air-entrained Class 4000. Sidewalks shall not be poured monolithically with curb and gutter.
Sidewalks shall be constructed to the same grade as the adjacent sidewalk to remain or to the top of sidewalk elevation shown in the Plans. Surface finish and joint pattern shall match that of the adjacent walk to remain, or as directed by the Engineer.

The finished surface shall be free from humps, sags, and other irregularities. Curb and gutter shall be water tested in the presence of the Engineer prior to acceptance to verify that water will flow along the flow line. No standing water will be allowed. Any locations not passing a water test shall be removed and replaced at the Contractor’s expense.

Any concrete surface finish damaged by improperly placed polyethylene sheeting, placement during inclement weather, or vandalism shall be removed and replaced at the Contractor’s expense.

**Sidewalk Ramp**

Construction of concrete sidewalk ramps shall conform to current requirements of the Americans with Disabilities Act as well as the specified WSDOT Standard Plan. Concrete shall be air-entrained Class 4000.

**Driveway Entrance**

Construction of concrete driveway entrance shall conform to WSDOT Standard Plans. Concrete mix shall be High Early Strength, Class 4000, with air entrainment.

(*****)

**8-14.3(5) Detectable Warning Surface**

Section 8-14.3(5) is supplemented with the following:

Double entry ramp locations, at which the length of truncated domes is equal to or greater than 10 feet, shall have a black truncated dome panel separating the two yellow dome panels.

**8-14.5 Payment**

Section 8-14.5 is supplemented with the following:

Payment will be made in accordance with Section 1-04.1 for the following bid item(s):

“Cement Conc. Driveway Entrance”, per square yard.

**8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS AND ELECTRICAL**

**8-20.3 Construction Requirements**

(NWR May 5, 2014)

**8-20.3(6) Junction Boxes, Cable Vaults, and Pull Boxes**

Section 8-20.3(6) is supplemented with the following:

Unless otherwise noted in the Plans or approved by the Engineer, junction boxes, cable vaults and pull boxes shall not be placed within the traveled way or paved shoulders.

All junction boxes, cable vaults, and pull boxes placed within the traveled way or paved shoulders shall be heavy-duty.

Wiring shall not be pulled into any conduit until all associated junction boxes have been adjusted to, or installed in, their final grade and location, unless installation is necessary to maintain system
operation. If wire is installed for this reason, sufficient slack shall be left to allow for future adjustment.

Prior to installing new cables or reinstalling existing cables into new or existing cable vaults, pull boxes or junction boxes, the cable vault, pull box or junction box shall be cleaned of all dirt and debris.

When junction boxes, cable vaults and pull boxes are installed or adjusted prior to construction of finished grade, pre-molded joint filler for expansion joints may be placed around the junction boxes, cable vaults and pull boxes. The joint filler shall be removed prior to adjustment to finished grade.

When junction boxes, cable vaults or pull boxes are adjusted to finished grade, the six-inch gravel pad requirements shall be maintained. When existing junction boxes pull boxes or cable vaults do not have this gravel pad, or the gravel pad does not meet these specifications, a gravel pad, meeting these specifications shall be installed as part of the adjustment to finished grade.

Heavy-duty Type 4, 5 and 6 junction boxes, cable vaults and pull boxes shall be installed in accordance with the following:

1. Excavation shall be sufficient to leave one foot in the clear between their outer surface and the earth bank.

2. Junction boxes, cable vaults and pull boxes shall be installed on a level 6-inch layer of crushed surfacing top course, in accordance with 9-03.9(3), placed on a compacted or undisturbed foundation. The crushed surfacing shall be compacted in accordance with Section 2-09.3(1)E.

3. After installation, the lid/cover shall be kept bolted down during periods when work is not actively in progress at the junction box, cable vault or pull box.

4. Before closing the lid/cover, the lid/cover and the frame/ring shall be thoroughly brushed and cleaned of all debris. There shall be absolutely no visible dirt, sand or other foreign matter between the bearing surfaces.

5. When the lid/cover is closed for the final time, a liberal coating of anti-seize compound shall be applied to the bolts and nuts and the lid shall be securely tightened.

6. Hinges on the Type 4, 5 and 6 junction boxes shall be located on the side of the box, which is nearest to the adjacent shoulder. Hinges shall allow the lid to open 180 degrees.

(******)
Section 8-20.3(6) is supplemented with the following:

Replace/New Junction Box

Where shown on the plans, place new junction boxes or replace existing junction boxes with the type shown in the table below. In locations where junction boxes are located within sidewalk, lids shall be replaced with non-slip lids meeting the requirements of the Americans with Disabilities Act. Junction boxes shall be located and oriented as shown on the Plans but may be adjusted in the field by the Engineer to better fit existing conditions. No junction boxes shall be located in pedestrian ramp areas.

<table>
<thead>
<tr>
<th>Street</th>
<th>Approx. Station</th>
<th>Type</th>
<th>WSDOT or COK Std. Plan</th>
<th>Lettering on Lid</th>
</tr>
</thead>
<tbody>
<tr>
<td>116th Ave NE</td>
<td>51+80LT</td>
<td>Type 2</td>
<td>J-40.10</td>
<td>COMM</td>
</tr>
</tbody>
</table>

Special Provisions -106
8-20.3(14)  Signal Systems

(NWR August 10, 2009)
Section 8-20.3(14) is supplemented with the following:

Temporary Video Detection System

Temporary video detection systems shall be completely installed and made operational prior to any associated induction loop being disabled.

(******)
8-20.3(14)C  Induction Loop Vehicle Detectors

Section 8-20.3(14)C is supplemented with the following:

General

All loops damaged by the Contractor must be replaced with Type 3 induction loops or as noted on the Plans.

The Contractor shall notify the WSDOT’s representative a minimum of five working days in advance of pavement removal or grinding in areas with existing loops.

Install loop detectors during conditions of zero precipitation and when the pavement temperature is between 40 degrees F and 100 degrees F.

Clean roadway surface of debris, standing water, or other material which may enter the sawcut and thereby degrade the quality of the installation.

In Section 8-20.3(14)C, Items 2 and 11 and the last two sentences of Item 4 are deleted.

(NWR August 16, 2010)
Section 8-20.3(14)C is supplemented with the following:

Round Loops

Round loops shall be constructed in accordance with the following requirements:

1. Loop conductor and lead in cable shall conform to Section 9-29.3(2)F of these Special Provisions.

2. Round sawcuts shall be six feet in diameter and shall be constructed using equipment designed for cutting round loops. The equipment shall use a concave, diamond-segmented blade. The sawcuts shall be normal to the pavement surface and shall be a minimum of 0.25 inches wide. The sawcut depth shall be a minimum of 2 5/8 inches and a maximum of three inches measured at any point along the perimeter, except on bridge decks. Other methods of constructing the round sawcut, such as anchoring a router or flat blade saw, will not be allowed.

3. The bottom of the sawcut shall be smooth. No edges created by differences in sawcut depths will be allowed.

4. All sawcut corners shall be rounded to a minimum 1.5 inch radius.

5. All sawcuts shall be cleaned with a 1000 psi high pressure washer as certified by the manufacturer's label on the machine or as measured by an in line pressure gauge. Wash water and slurry shall be vacuumed out and the sawcut shall be blown dry with compressed air. Disposal of the wash water and slurry shall comply
with the requirements of Section 1-07.5(3) and the Special Provision LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC.

6. Loops shall be installed after grinding and prior to the final lift of roadway surfacing material.

7. The conductor shall be installed one turn on top of the previous turn. All turns shall be installed in a clockwise direction. The conductors shall be secured to prevent floating with 2-inch lengths of high temperature foam backer rod sized for a snug fit. The backer rod shall be spaced at 2-foot intervals around the perimeter of the sawcut and at corners.

8. Installation of the sealant shall completely encapsulate the loop conductors. A minimum of one inch of sealant shall be provided between the top of the conductors and the top of the sawcut. The top of the sealant shall be flush to 1/8 inch below the top of the sawcut.

9. Use of kerosene solvent is prohibited.

Test for Induction Loops and Lead-in Cable
Section 8-20.3(14)D is supplemented with the following:

(NWR October 5, 2009)
Induction Loop Tests
Test A and Test D are revised as follows:

Test A – The DC resistance between the 2 lead-in cable wires, including the loop, shall be measured by a volt ohmmeter. The resistance shall not exceed 5-ohms or lower the Q of the circuit below 5 where Q is equal to the “Inductive Impedance @ 50 kHz” divided by “Resistance”.

Test D - An inductance test shall be made to determine the inductance level of each inductance loop. The Contractor shall record the inductance level of each inductance loop installed on the project and shall furnish the findings to the Engineer. An induction level, as measured from the controller cabinet, below 50-microhenries is considered a failure.

(NWR October 5, 2009)
Existing Lead-in Cable Test
When new induction loops are scheduled to be installed and spliced to an existing two-conductor shielded detector lead-in cable, the Contractor shall perform the following:

1. Disconnect the existing detector lead-in cable in the controller cabinet and at the loop splice.
2. Megger test both detector lead-in cable conductors. A resistance reading of less than 100-megohms is considered a failure.
3. Detector lead-in cables that fail the test shall be replaced and then retested.
4. After final testing of the detector lead-in cable, the loop installation shall be completed and the loop system tested according to Tests A, C and D.
5. Connect the detector lead-in cables in the controller cabinet.

Video Signal Detection Installation

Temporary Video Signal Detection – Intersection of 116th Ave NE and NE 70th Pl (WSDOT Intersection)
The Contractor shall coordinate the installation of temporary vehicle detection devices at least five (5) Working Days prior to performing any work that may cause damage to the existing vehicle detection loops. All components needed to provide a complete video detection system shall be per manufacturer’s recommendation and supplied by the City and installed by the Contractor. A City representative and a WSDOT traffic signal representative shall be on site during the installation for camera set up and support. Contact the City Inspector to coordinate such work. Video detection shall be as shown on the project plans and set up so as to provide stop bar, advance and dilemma zone detection. The complete video detection system shall be installed and made operational prior to existing detection loops system being disabled.

After the vehicle detection loops are installed, tested, and are operating properly, the Contractor shall remove the temporary video detection devices and return all the equipment to the City.

(******)

8-20.4 Measurement

Section 8-20.4 is supplemented with the following:

Traffic signal induction loops shall be measured per each.

3’x3’ traffic induction loops shall be measured per each.

Junction boxes shall be measured per each.

Stub outs and/or home runs that require replacement will be paid for by force account under the "Minor Change" bid item as specified in Section 1-09.6. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become part of the total bid by the Contractor.

No specific unit of measurement will apply to the lump sum items of “Video Signal Detection Installation”.

(******)

8-20.5 Payment

Section 8-20.5 is supplemented with the following:

Payment will be made in accordance with Section 1-04.1 for the following bid item(s):

“Traffic Signal Induction Loop – Type 3”, per each.

“Traffic Induction Loop 3’x3’ “, per each

“Replace/New Junction Box Type _____”, per each.

“Video Signal Detection Installation”, per lump sum.

The lump sum Contract price for “Video Detection Installation” shall be full compensation for the costs of all tools, equipment, materials, and labor necessary or incidental to install City supplied video signal detection equipment and to provide a complete and operational traffic signal system at the designated intersection, including but not limited to wiring, and all other Work as specified. This lump sum Contract price also includes work necessary to remove the temporary video detection system from WSDOT intersection, after the vehicle detection loops are installed, tested and are operating properly.
8-21 PERMANENT SIGNING

8-21.2 Materials
Section 8-21.2 is supplemented with the following:

Sign facing shall be Type III (High Intensity Grade) retroreflective in accordance with Section 9-28.

8-21.3 Construction Requirements
8-21.3(5) Sign Relocation
Section 8-21.3(5) is supplemented with the following:

Contractor shall provide and erect temporary signs prior to, or immediately following, removal of existing signs. Temporary signs shall be maintained by the Contractor until the permanent signs have been reinstalled.

Signs shall be reinstalled per City of Kirkland Pre-Approved Plan CK.R.43. The Contractor shall coordinate permanent sign location with the City's Sign Shop prior to installation. If existing post of permanent sign is not 2” Schedule 40 galvanized pipe then a new post shall be installed per City of Kirkland Pre-Approved Plan CK.R.43.

8-21.4 Measurement
Section 8-21.4 is supplemented with the following:

No unit of measurement shall apply to the lump sum price “Relocate Permanent Signage”.

8-21.5 Payment
Section 8-21.5 is supplemented with the following:

“Relocate Permanent Signage”, per lump sum.

The lump sum price for “Permanent Signing” shall be full compensation for all work and materials necessary to remove, reinstall, or replace existing signs and posts, and provide for and install new signs in accordance with the Plans and details, including all costs associated with furnishing, installing, and maintaining temporary signs and posts during the relocation of the permanent signs.

8-22 PAVEMENT MARKINGS

8-22.1 Description
Section 8-22.1 is supplemented with the following:

This work shall consist of furnishing, installing, and removing pavement markings on roadway and parking lot surfaces in accordance with the Plans, City of Kirkland Pre-Approved Plans, and these Specifications, at locations shown in the Plans or as directed by the Engineer.

Painted Bicycle Lane Line

A SOLID WHITE line, 6 inches wide, used to separate vehicular travel lanes from bicycle travel lanes.

A SOLID WHITE line, 4 inches wide, used in bicycle buffer space, at 45-degrees angle from the solid white 6-inch wide line, and at 20-foot intervals or as directed by the Engineer.
Painted Bicycle Detection Symbol
A SOLID WHITE marking, conforming to the details in the Contract and CK-R.34A.

Painted Pedestrian Symbol
A SOLID WHITE marking, conforming to the details in the Contract.

Painted Bicycle Lane Symbol
A SOLID WHITE marking, conforming to the details in the Contract and CK-R.34.

Plastic Bicycle Lane Symbol
A SOLID WHITE marking, conforming to the details in the Contract and CK-R.34.

Plastic Stop Line
A SOLID WHITE line, 18 inches wide, conforming to details in the Contract and CK-R.28.

8-22.2 Materials
Pavement marking materials shall be as specified in Section 9-34 of the Standard Specifications and these Special Provisions.

8-22.3 Construction Requirements
8-22.3(2) Preparation of Roadway Surfaces
Section 8-22.3(2) is supplemented with the following:

Any street sweeping necessary to prepare the roadway surface for pavement marking shall be incidental to the cost of associated pavement marking application.

8-22.3(3) Marking Application
Two applications of paint will be required when the paint marking is to be applied to a newly paved surface or when the paint marking is not applied over an existing paint marking. The time period between applications shall be per the Standard Specification.

8-22.3(6) Removal of Pavement Markings
Section 8-22.3(6) is supplemented with the following:

Existing pavement markings including plastic crosswalks, stop bars, traffic arrows, and raised pavement markers (RPMs) shall be removed prior to placement of asphalt overlay.

Pavement markings shall not be removed by grinding method except when preparing for asphalt overlay or when otherwise specifically authorized by the engineer. Damaged pavement shall be repaired/replaced at no cost to the Contracting Agency. Contractor shall use all reasonable means necessary to minimize air and noise pollution. No material associated with pavement marking removal shall be allowed to enter the public storm drainage system.

8-22.4 Measurement
The fourth paragraph of Section 8-22.4 is revised as follows:

“Plastic Stop Line” shall be measured by the square foot of marking installed.
“4” Hatch Paint Line – Buffer Lane” shall be measured per linear foot.

“Painted Bicycle Detection Symbol” shall be measured per each.

“Painted Pedestrian Symbol” shall be measured per each.

The last two paragraphs of Section 8-22.4 are replaced with the following:

No unit of measure shall apply to the lump sum price for removal of pavement markings and markers.

8-22.5 Payment

Section 8-22.5 is supplemented with the following:

“Plastic Stop Line”, per square foot.

“Painted Bicycle Lane Line”, per linear foot.

“4” Hatch Paint Line – Buffer Lane”, per linear foot.

“Painted Bicycle Sharrow Symbol”, per each.

“Painted Bicycle Detection Symbol”, per each.

“Painted Pedestrian Symbol”, per each.

“Plastic Green Bicycle Lane Treatment”, per square foot.

“Plastic Speed Hump Markings”, per each.

“Removal of Pavement Markings & Markers”, per lump sum.

8-23 TEMPORARY PAVEMENT MARKINGS

8-23.4 Measurement

The last paragraph of Section 8-23.4 is revised to read:

No separate measurement of temporary pavement marking removal will be made.

8-23.5 Payment

Section 8-23.5 is supplemented with the following:

The unit contract price per linear foot for “Temporary Pavement Marking” shall also include full payment for costs associated with removing temporary markings.

(******)

8-90 ADJUST OR REPLACE MISCELLANEOUS UTILITY

8-90.1 Description

This work consists of adjusting miscellaneous utilities prior to and after asphalt paving activities as shown in the Plans and these Specifications. It includes coordination with franchise utility companies for the lowering and raising of their utilities.
8-90.3 Construction Requirements
The Contractor shall notify franchise utility companies of their proposed grind, pavement repair and paving schedule to allow time for the franchise utility companies to lower and raise their utilities.

Adjust Miscellaneous Utility - Lowering
Prior to planning operations, cleanouts, monitoring well cases, and other similar utilities shall be lowered vertically below the limits for planning bituminous pavement. After the utilities have been lowered, the Contractor shall patch the resultant void with cold mix asphalt.

Adjust Miscellaneous Utility - Raising
Cleanouts, monitoring well cases, and other similar utilities shall be brought to finished grade in accordance with Kirkland Pre-Approved Plans No. CK-S.17 and CK-R.02. Steel risers are not allowed for cleanout adjustments. Patch pavement with Class G asphalt concrete pavement. Seal with PG 58H-22 and dry sand after patching.

Adjust Gas Valve - Lowering
Gas valves and test leads shall be lowered prior to planing activities to prevent damage to the valve, valve box top section, ring or cover. All parts or materials damaged as a result of the Contractor’s operations shall be replaced at no expense to the Contracting Agency or utility owner.

Per the pipeline safety regulations contained in WAC 480-93, valves must be maintained during construction and the corrosion protection for steel gas piping must be periodically monitored. The contractor shall coordinate the adjustment of the valve boxes and cathodic protection test lead boxes with Puget Sound Energy.

Adjust Gas Valve - Raising
Gas valves and test leads shall be brought to finished grade by methods of construction as required by Puget Sound Energy. Steel risers are not allowed for gas valve adjustments. Patch pavement with Class G asphalt concrete pavement. Seal with PG 58H-22 and dry sand after patching.

8-90.4 Measurement
Adjustment of cleanouts, gas valves, junction boxes and other miscellaneous utility adjustments will be measured per each.

8-90.5 Payment
Payment will be made in accordance with Section 1-04.1 for the following bid item(s):

“Adjust Gas Valve Box - Lowering”, per each.

The unit Cost price for “Adjust Gas Valve Box – Lowering” shall be full pay for all costs necessary to make the lowering adjustment including coordination with Puget Sound Energy.

“Adjust Gas Valve Box - Raising”, per each.

The unit Contract Price for “Adjust Gas Valve Box – Raising” shall be full pay for all costs necessary to make the raising adjustment, including the coordination with Puget Sound Energy and the restoration of adjacent areas in a manner acceptable to the Engineer.

“Adjust Miscellaneous Utility - Lowering”, per each.
The unit Cost price for “Adjust Miscellaneous Utility – Lowering” shall be full pay for all costs necessary to make the lowering adjustment including cold mix asphalt.

“Adjust Miscellaneous Utility - Raising”, per each.

The unit Contract Price for “Adjust Miscellaneous Utility – Raising” shall be full pay for all costs necessary to make the raising adjustment, including the restoration of adjacent areas in a manner acceptable to the Engineer.

(******)

8-91 EDGE & PROPERTY RESTORATION

8-91.1 Description

**Edge Restoration** shall consist of placing crushed surfacing top course along the finished edge of asphalt concrete pavement, per Pre-Approved Plan CK-R.14, when such edge abuts a gravel shoulder; topsoil and seed shall be placed when such edge abuts a lawn area. Edge restoration for landscaped areas shall consist of placing mulch, bark, topsoil, or plant materials to match the existing landscaping. The work also includes placing topsoil, seed, bark mulch, or plant materials along the finished edge of cement concrete sidewalk, curb and gutter, or curb ramps installed under this contract to match existing lawn or landscaping as identified in the Plans and as directed by the Engineer.

**Property Restoration** shall consist of fence relocation, irrigation system modifications, as shown in the Plans, as well as other unforeseen adjustments to private property as necessary to construct the work.

8-91.4 Measurement

Edge restoration will be made by the linear foot of restoration work completed, regardless of type, width or depth of material placed.

Property Restoration shall be by force account.

“Property Restoration” will be paid for by force account as specified in Section 1-09.6. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the total bid by the Contractor.

8-91.5 Payment

Payment will be made in accordance with Section 1-04.1 for the following bid item(s):

“Edge Restoration”, per linear foot.

“Property Restoration”, per force account.

END OF DIVISION 8
DIVISION 9 - MATERIALS

9-03 AGGREGATES

9-03.8 Aggregates for Hot Mix Asphalt

9-03.8(2) HMA Test Requirements

(March 10, 2010 APWA GSP)

Section 9-03.8(2) is supplemented with the following:

ESAL's

The number of ESAL's for the design and acceptance of the HMA shall be **6.0 million**.

(******)

9-14 EROSION CONTROL AND ROADSIDE PLANTING

9-14.1 Soil

9-14.1(1) Topsoil, Type A

Section 9-14.1(1) is deleted in its entirety and replaced with the following:

Topsoil Type A shall be Cedar Grove two-way mix or approved equal, consisting of the following:

Soil shall be a mixture of 50% pure compost, and 50% sand, sandy loam, or silty sand. The compost shall be fully composted and mature organic materials. No fresh sawdust or other fresh wood by-products shall be added to extend the volume after the composting process. Refer to Section 9-14.4(8) Compost.

Chemical/physical characteristics shall comply with the following:

<table>
<thead>
<tr>
<th>Screen Size (approx. Particle size)</th>
<th>7/16&quot; maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen</td>
<td>.25% minimum</td>
</tr>
<tr>
<td>Organic Matter</td>
<td>50%</td>
</tr>
<tr>
<td>pH Range</td>
<td>5.5-7.5</td>
</tr>
<tr>
<td>Conductivity</td>
<td>5 mmhos/cm maximum</td>
</tr>
</tbody>
</table>

Compost shall be 98% minimum material derived from the aerobic decomposition of recycle plant waste and/or secondary sewage treatment. It shall be free of viable weeds and other plant propagules and shall have a moisture content that has no visible free water or dust produced when handling the material.

9-14.2 Seed

Section 9-14.2 is supplemented with the following:

The seed mix shall be as follows:

<table>
<thead>
<tr>
<th>Sun/Shade Mix</th>
<th>Common Name</th>
<th>Percent of Mix (by weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hard Fescue</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Creeping Red Fescue</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Perennial Ryegrass</td>
<td>70</td>
</tr>
</tbody>
</table>
Application Rate: 8-10lbs per 1000 square feet
Purity: Not less than 98%
Germination: Not less than 90%
Max. Weed Content: 0%

9-14.4 Mulch and Amendments

9-14.4(3) Bark or Wood Chips

Section 9-14.4(3) is supplemented with the following:

Bark mulch - mulch shall be 2-way mix consisting of the following:

- 50% composted ground fir or hemlock bark
- 50% composted manure

Bark shall be uniform in color, free from weed seeds, sawdust and splinters. Mulch shall not contain resin, tannin, wood fiber or other compounds detrimental to plant life. Moisture content of bagged mulch shall not exceed 22%. The acceptable size range of bark mulch material is ½ inch with a maximum of 20% passing the ½ inch screen.

(******)

9-21 RAISED PAVEMENT MARKERS (RPM)

9-21.2 Raised Pavement Markers Type 2

Section 9-21.2 is supplemented with the following:

White Type 2 RPM installed at crosswalk locations shall have reflective faces on opposite sides of the RPM. The RPM shall be installed such that the reflective faces face oncoming traffic and away from oncoming traffic.

(******)

9-29 ILLUMINATION, SIGNAL, ELECTRICAL

(NWR January 7, 2013)

9-29.2(1)A Standard Duty Junction Boxes

This section is supplemented with the following:

Concrete Junction Boxes
Both the slip-resistant lid and slip-resistant frame shall be treated with Mebac#1 as manufactured by IKG industries, or SlipNOT Grade 3-coarse as manufactured by W.S. Molnar Co. Where the exposed portion of the frame is ½ inch wide or less the slip-resistant treatment may be omitted on that portion of the frame. The slip-resistant lid shall be identified with permanent marking on the underside indicating the type of surface treatment (“M1” for Mebac#1; or “S3” for SlipNOT Grade 3-coarse) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a stainless steel weld bead.

(NWR February 11, 2013)

9-29.2(4) Cover Markings

This Section is supplemented with the following:

Junction Box Identification
Junction boxes shall be marked “WSDOT” when the junction boxes are to be installed as part of a future raceway system in a bridge structure, vehicle barrier, pedestrian barrier, or
roadway crossing and the future raceway system is not connected to an illumination, signal, interconnect, or ITS raceway system.

Junction boxes, pull boxes and cable vaults containing only Traffic Signal Interconnect (fiber optics) cable shall be marked or embossed with the legend “COMM”.

9-29.3 Fiber Optic Cable, Electrical Conductors, and Cable

9-29.3(2) Electrical Conductor and Cable

(NWR October 5, 2009)

9-29.3(2)F Detector Loop Wire

Section 9-29.3(2)F is revised to read as follows:

Detector loop wire shall use 14 AWG stranded copper conductors, and shall conform to IMSA Specification 51-7, with cross-linked polyethylene (XLPE) insulation encased in a polyethylene outer jacket (PE tube).

9-29.12 Electrical Splice Materials

Section 9-29.12 is supplemented with the following:

(NWR March 1, 2011)

9-29.12(2) Traffic Signal Splice Material

Section 9-29.12(2) is supplemented with the following:

Induction loop splices shall be either the heat shrink type or the re-enterable type with end cap seals.

(NWR May 5, 2014)

9-29.18 Vehicle Detector

Section 9-29.18 is supplemented with the following:

Loop Sealant

Loop sealant for use in HMA pavement shall be one of the following:

1. RAI Pro-Seal 6006EX
2. QCM EAS-14
3. 3M Black 5000
4. Craftco Inc. Part #34271

Loop sealant for use on concrete bridge decks and PCC pavement shall be one of the following:

1. 3M Black 5000
2. Gold Label Flex 1P
3. QCM EAS-14
4. Craftco Inc. Part #34271

(******)

9-34 Pavement Marking Material

9-34.2 Paint

Section 9-34.2 is deleted in its entirety and replaced with the following:

Paint shall comply with the specifications for low VOC solvent based paint.

9-34.3 Plastic

Section 9-34.3 is supplemented with the following:
Plastic pavement marking materials shall comply with the specifications for Type A, liquid hot applied thermoplastic. All preformed thermoplastic shall have a minimum skid resistance of 60 BPN. The skid resistance will be determined using ASTM Test Method D4505.

**Plastic Green Bicycle Lane Treatment**

Plastic Green Bicycle Lane Treatment shall be PreMark by Ennis-Flint or approved equal.

**END OF DIVISION 9**
PREVAILING WAGE RATES
PREVAI Li NG WAGE RATES

Prevailing wage rates can be found at:
www.lni.wa.gov/tradeslicensing/prevwage/wagerates

Use May 15, 2019 rates
(published date - use bid date)

King County

A copy of the applicable wage rates is available for viewing in our office:

       City Hall Annex
          310 1st Street
         Kirkland, WA  98033

The City of Kirkland will mail a hard copy of the applicable wage rates upon request.
Send your request to the Project Engineer, or jmuse@kirklandwa.gov.
APPENDIX A

PRE-APPROVED PLANS

City of Kirkland
NOTES:
1. WHERE DEPTH OF NECK EXCEEDS 18 INCHES, ADJUST MANHOLE/CATCH BASIN TO GRADE BY INSERTING NEW BARREL SECTION BETWEEN THE CONE/SLAB AND EXISTING BARREL.

2. GRADE RINGS, RISERS, BRICK AND FRAME SHALL BE SET IN 3/4" NON-SHRINK GROUT, GROUT BETWEEN ALL JOINTS. ALL SURFACES MUST BE CLEAN OF DEBRIS AND DIRT, AND WETTED PRIOR TO GROUTING. GROUT SMOOTH INSIDE AND OUTSIDE SURFACES.

3. STEPS OR HAND HOLDS SHALL BE ADDED AS NEEDED.

4. PRECAST GRADE RINGS AND RISERS MUST BE CAST WITH GROOVE TO ALLOW FIELD INSTALLATION OF SAFETY STEP.

5. REPLACE EXISTING FRAME AND COVER/GRATE IF NON-STANDARD.

6. IF REQUIRED: LOCKING MH SHALL BE POSITIONED WITH ONE LUG CENTERED OVER STEPS.

7. IF LEVELING BRICKS ARE USED, GROUT IS REQUIRED ON THE OUTSIDE OF THE BRICKS UNLESS ENCASED IN CONCRETE BY THE ADJUSTMENT COLLAR. IF THE ADJUSTMENT IS OFFSET, THE RINGS SHALL BE GROUTED FLUSH. NO LEDGES.

CITY OF KIRKLAND
PLAN NO. CK- D.11
MANHOLE/CB FRAME AND GRATE ADJUSTMENT
NOTES:

1. USE EAST JORDAN IRON WORKS OR EQUAL TWO BOLT LOCK CAPABILITY THAT MEETS WSDOT SPEC. MANUFACTURER SUBJECT TO APPROVAL BY CITY.

2. USE WITH TWO LOCKING BOLTS 5/8”-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2” LONG. NOTE SLOT DETAIL.

3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.

4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON BORDER AREA.

5. SHALL CONFORM TO SEC. 7.05 OF THE STANDARD SPECIFICATIONS.

6. WELDING IS NOT PERMITTED.

7. EDGES SHALL HAVE 0.125” RADIUS, 0.125” CHAMBER OR COMPLETE DEBURRING.

8. USE A BI-DIRECTIONAL VANED GRATE AT ANY LOW POINT OR WHEN FLOWS COME FROM MULTIPLE DIRECTIONS.

9. NO EXPANSION MATERIAL IN THE FLOW LINE, WHERE CONCRETE COMES TO FRAME.

10. FRAME AND COVER SHALL BE H-20 LOADING RATED IF INSTALLED IN ROADWAY.

CITY OF KIRKLAND

PLAN NO. CK-D.14

VANED GRATE
FOR CATCH BASIN AND INLET
NOTES:

1. FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS OR EQUAL, SUBJECT TO APPROVAL BY CITY.
2. PATTERN ON TOP SHALL SPECIFY FISH LOGO AND DUMP NO POLLUTANTS (NO DIAMOND PATTERN).
3. SET TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
4. HOOD SHALL MATCH TOP OF CURB ELEVATION.
5. NO HORIZONTAL CROSS BAR IN THE OPENING.
NOTE:
1. FRAME MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
2. SET FRAME TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
3. BACK OF FRAME SHALL BE IN FLOWLINE OF GUTTER.

CITY OF KIRKLAND
PLAN NO. CK– D.16A
STANDARD FRAME WITH CURB INSTALLATION
NOTES:

1. VERIFY SLOTTED FRAMES ARE THOROUGHLY FILLED IN WITH MORTAR FOR EFFICIENT INTERACTION WITH IRON AND STRUCTURE.
2. VERIFY BEDDING MORTAR IS NOT IN CONTACT WITH AREA UNDER LID FLANGE THAT WILL INTERFERE WITH CAMLOCK.
3. INSTALL PLUG IN LOCK HOLE TO KEEP LOCK FREE OF FOREIGN MATERIAL.
4. 24 INCH MANHOLE LID IS FITTED WITH AN INFILTRATION PLUG LOCATED IN THE HINGE HOUSING OF THE FRAME. VERIFY PLUG IS PROPERLY INSTALLED BEFORE INSTALLING THE FRAME.
5. REQUIRED ON ALL ARTERIALS, COLLECTORS OR ANY TIME THAT THE IRON WILL BE WITHIN THE TRAVEL LANE.
6. LID SHALL BE MARKED "STORM DRAIN".
7. CITY OF KIRKLAND LOGO REQUIRED.
8. LID MUST BE COVERED WITH TAR PAPER BEFORE OVERLAY.
9. PRODUCT SUPPLIED BY EAST JORDAN IRON WORKS, OR APPROVED EQUAL.
10. FRAME AND COVER SHALL BE H-20 LOADING RATED IF INSTALLED IN ROADWAY.
NOTES:

1. VERIFY SLOTTED FRAMES ARE THOROUGHLY FILLED IN WITH MORTAR FOR EFFICIENT INTERACTION WITH IRON AND STRUCTURE.
2. VERIFY BEDDING MORTAR IS NOT IN CONTACT WITH AREA UNDER LID FLANGE THAT WILL INTERFERE WITH CAMLOCK.
3. INSTALL PLUG IN LOCK HOLE TO KEEP LOCK FREE OF FOREIGN MATERIAL.
4. 24 INCH MANHOLE LID IS FITTED WITH AN INFILTRATION PLUG LOCATED IN THE HINGE HOUSING OF THE FRAME. VERIFY PLUG IS PROPERLY INSTALLED BEFORE INSTALLING THE FRAME.
5. REQUIRED ON ALL ARTERIALS, COLLECTORS OR ANY TIME THAT THE IRON WILL BE WITHIN THE TRAVEL LANE.
6. LID SHALL BE MARKED “STORM” OR “DRAINAGE”.
7. CITY OF KIRKLAND LOGO REQUIRED.
8. LID MUST BE COVERED WITH TAR PAPER BEFORE OVERLAY.
9. PRODUCT SUPPLIED BY EAST JORDAN IRON WORKS, OR APPROVED EQUAL.
10. FRAME AND COVER SHALL BE H-20 LOADING RATED IF INSTALLED IN ROADWAY.
PROTECTION INSERT WITH OUTER FLAP (NOT ALLOWED) PLAN VIEW - NTS

STORM DRAIN PROTECTION INSERT SECTION A-A NTS

TWO RETRIEVAL STRAPS BELOW GRATE

GEOTEXTILE FABRIC FOR SEDIMENT REMOVAL

WIRE RING INSIDE OF THE FRAME BELOW LID

STORM DRAIN PROTECTION INSERT ISOMETRIC VIEW (TYP.) NTS
EXISTING AC PAVEMENT

TACK SEAL SEAM WITH PG 64-22 AND PROVIDE SAND BLANKET TO ALLEVIATE TRAILING

12" MIN

ADJUST FLUSH TO GRADE

12" MIN

HMA CLASS 1/2"
6" MIN. WIDTH

TOP SECTION

COMPACTED SELECT MATERIAL

12"
NOTES

1. STANDARD MONUMENT CASE AND COVER
   WASHINGTON STATE DEPARTMENT OF
   TRANSPORTATION STANDARD PLAN A10.30

2. THE CASTINGS SHALL BE GREY-IRON
   CASTINGS, ASTM DESIGNATION A-48, CLASS
   30B. THE COVER AND SEAT SHALL BE
   MACHINED SO AS TO HAVE PERFECT
   CONTACT AROUND THE ENTIRE CIRCUM-
   FERENCE AND FULL WIDTH OF BEARING
   SURFACE.
3/4" - 1-1/2" MINUS CRUSHED ROCK SHOULDER (TYP) COMPACT TO 85% OF MAX DRY DENSITY (ASTM 1557)

NOTE:
MAY BE USED FOR SPECIAL APPLICATIONS IN ALLEYS AS DETERMINED BY THE PUBLIC WORKS INSPECTOR OR ENGINEER.
NOTES:

1. ALL JOINTS PLANED PERPENDICULAR TO TRAVEL LANES SHALL BE IMMEDIATELY PAPER JOINTED, COLD MIXED, AS PER THIS DETAIL, AND MAINTAINED UNTIL NEW HMA LAYER IS INSTALLED. PAPER JOINTS WILL BE REMOVED JUST PRIOR TO PLACEMENT OF WEARING COURSE.
COLD MIX RAMP

NOTES:

ALL JOINTS PLANE PERPENDICULAR TO TRAVEL LANES SHALL BE IMMEDIATELY PAPER JOINTED, COLD MIXED, AS PER THIS DETAIL, AND MAINTAINED UNTIL HMA LAYER IS INSTALLED. PAPER JOINTS WILL BE REMOVED JUST PRIOR TO PLACEMENT OF WEARING COURSES.
WITHOUT THICKENED EDGE

ACP OVERLAY

EXISTING ROADWAY

EXISTING GROUND

CRUSHED SURFACING OR TOPSOIL AS DIRECTED BY THE ENGINEER

WITH THICKENED EDGE

ACP OVERLAY

EXISTING ROADWAY

EXISTING GROUND

CRUSHED SURFACING OR TOPSOIL AS DIRECTED BY THE ENGINEER

EDGE RESTORATION BEHIND CONCRETE SIDEWALK

EDGE RESTORATION WITH MINIMUM DEPTH OF 6 INCHES TOPSOIL AT NO GREATER THAN 8:1 SLOPE

CONCRETE SIDEWALK

CURB AND GUTTER
EXTRUDED ASPHALT CONCRETE CURB

EXTRUDED CEMENT CONCRETE CURB

NOTE:
The adhesive shall meet the requirements of Section 9-26.1 for Type-II Epoxy Bonding Agent.

CITY OF KIRKLAND
PLAN NO. CK-R.19
EXTRUDED CURB
NOTE:
INSTALL 8" #4 REBAR IN EVERY HOLE AND FILL HOLE WITH GROUT

INSTALLATION DETAIL FOR STRAIGHT PRECAST TRAFFIC CURB

NOTE:
1. ALL JOINTS BETWEEN ASPHALT PATCH AND EXISTING PAVEMENT SHALL BE SEALED.

2. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF SECTION 9.26 OF THE WSDOT STANDARD SPECIFICATION. USE APPROPRIATE ADHESIVE TYPE FOR EXISTING CONDITIONS.

3. MEDIAN CURB SHALL BE PAINTED. PAINT SHALL MEET SECTION 9.34.2 OF THE WSDOT STANDARD SPECIFICATION.
THICKENED EDGE FOR ASPHALT PAVEMENT

EXTRUDED ASPHALT CONCRETE CURB

ASPHALT WEDGE CURB

CITY OF KIRKLAND
PLAN NO. CK-R.20

EXTRUDED ASPHALT CONCRETE SECTION
NOTES:

1. STORM DRAINAGE INLETS SHALL BE OUTSIDE THE CURB RAMP.

2. THE CURB RAMP MAY BE MOVED AWAY FROM THE CROSSWALK TO AVOID CONFLICTS WITH HYDRANTS, POLES, INLETS OR OTHER UTILITIES, EXCEPT WHERE THE STREET GRADE EXCEEDS 4%.

3. FOR SWEEPING EFFICIENCY WHEN CURB BULBS (PARKING SETBACKS) ARE USED, REVERSE CURVE RADII SHALL NOT BE LESS THAN 15 FEET. REFER TO DETAIL A.

4. FOR STAKING PURPOSES, RAMPS MAY BE LOCATED PER QUARTER DELTA AND PUBLIC WORKS APPROVAL.

5. REFER TO WSDOT STANDARDS
NOTE
1. Markings shall be thermoplastic.
RAMP PORTION OF WHEELCHAIR CURB RAMP TO BE LOCATED WITHIN CROSSWALK

NO PARKING BETWEEN STOP BAR AND CROSSWALK

R1-5b SIGN MUST BE LOCATED AT STOP BAR

STOP BAR (ON MULTI-LANE APPROACHES)

CENTERLINE

4"x4" TWO-WAY, WHITE REFLECTIVE RAISED PAVEMENT MARKERS (CK-R.29 TYPE II)

MARKING TO BE PARALLEL TO AND CENTERED ON EACH TRAVEL LANE (SEE DETAIL).

CURB OR EDGE OF PAVEMENT

VARIES (AS DIRECTED BY ENGINEER)

10'

10'

24" TYP.

2" TYP.

2"

NOTES

1. MARKINGS SHALL BE THERMOPLASTIC.

2. FOR TWO-WAY REFLECTIVE RAISED PAVEMENT MARKERS, SEE PLAN NO. CK-R.29 TYPE 2.

3. SEE SECTION 38.16 2009 MUTCD FOR MORE INFORMATION.

4. DO NOT PLACE RPM IN BIKE LANE OR ON EDGE LINES.
NOTES

1. TYPE C PAVEMENT MARKERS TO BE USED ONLY UPON APPROVAL BY TRAFFIC ENGINEER.

2. NOT TO BE USED ON EDGELINES.

CITY OF KIRKLAND

PLAN NO. CK-R.29

LANE MARKERS (DIMENSIONS)
THERMOPLASTIC REQUIRED

1. THERMOPLASTIC REQUIRED

TWO-WAY LEFT TURN MARKERS

TYPICAL ARROW

NOTES

CITY OF KIRKLAND

PLAN NO. CK- R.30

TWO-WAY LEFT TURN LANE AND TYPICAL ARROW
NOTES

1. MATCH EXISTING PAVEMENT MARKING DIMENSIONS.

2. SEE CK-R.30 FOR TWO-WAY LEFT TURN ARROW PLACEMENT.

3. RAISED PAVEMENT MARKER COLOR SHALL CONFORM TO THE COLOR OF THE MARKING FOR WHICH THEY SUPPLEMENT, SUBSTITUTE FOR, OR SERVE AS A POSITIONING GUIDE FOR.

CITY OF KIRKLAND

PLAN NO. CK-R.31

PAVEMENT MARKING DETAIL
NOTES:
1. BIKE LANE SYMBOLS AND ARROW MATERIAL SHALL BE 90 MILL, PREFORMED, SKID RESISTANT THERMOPLASTIC.
2. BICYCLE SYMBOL FACES ROADWAY CENTERLINE.
NOTES:

1. INSTALL MARKING AT SIGNALIZED INTERSECTIONS TO INDICATE WHERE BICYCLES SHOULD STOP IN ORDER TO ACHIEVE REGULAR AND RELIABLE DETECTION BY SIGNAL EQUIPMENT.

2. USE MARKING ON ANY APPROACH TO A SIGNALIZED INTERSECTION WHERE LOOP DETECTORS SPECIFICALLY FOR BICYCLES ARE NOT PRESENT AND ANY APPROACH WHICH IS SHOWN A GREEN INDICATION ONLY WHEN VEHICLE LOOPS ARE ACTUATED, I.E. THE APPROACH IS NOT ON "RECALL" OPERATION.

3. PLACE MARKING SUCH THAT BICYCLES WHICH STOP OVER THE MARKINGS WILL ACTIVATE THE SIGNAL.

4. PLACE THE MARKING TO ALLOW BICYCLES GOING THROUGH, TURNING RIGHT, OR TURNING LEFT TO ACTIVATE THE SIGNAL.

5. MARKINGS ARE NOT NECESSARY IN EXCLUSIVE LEFT TURN LANES OF APPROACHES THAT ARE OPERATED BOTH (1) ON RECALL AND (2) IN PERMISSIVE ONLY MODE.

6. IF AN APPROACH HAS MULTIPLE LANES SERVING THROUGH MOVEMENTS AND/OR MULTIPLE LANES SERVING THE SAME TURNING MOVEMENT, ONLY THE RIGHTMOST OF SUCH MULTIPLE LANE GROUPS SHALL BE MARKED.

7. WHERE MULTIPLE LOOPS ARE PRESENT IN A SINGLE LANE, MARKINGS SHALL BE PLACED AS CLOSE TO THE STOP BAR AS POSSIBLE.

8. IN GENERAL, MARKINGS SHALL BE PLACED OVER THE RIGHT EDGES OF SQUARE LOOPS OR CONGRUENT WITH A LINE TANGENT TO THE RIGHTMOST POINT ON THE EDGE OF A CIRCULAR LOOP.

9. IN GENERAL, BICYCLE MARKINGS ARE NOT NEEDED ON APPROACHES WHERE VIDEO DETECTION IS IN PLACE, AS LONG AS BICYCLES CAN BE DETECTED REGULARLY AND RELIABLY BY STOPPING AT THE STOP BAR IN THE MIDDLE OF THE LANE.

10. MATERIAL SHALL BE PAINT OR OTHER APPROVED MATERIAL.

11. SEE ALSO 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SECTION 9C.05; RCW 46.61.710; 2004 STANDARD HIGHWAY SIGNS PAGE 10–17.

BICYCLE DETECTION MARKING DETAIL
NOT TO SCALE
WHEN SIDEWALK IS PRESENT, EDGE OF SIGN SHALL BE LOCATED ADJACENT TO BACK OF SIDEWALK. WHEN THERE IS NO SIDEWALK OR WHEN THERE IS A PLANTING STRIP BETWEEN CURB AND SIDEWALK, EDGE OF SIGN SHALL BE LOCATED 1.5 FEET FROM FACE CURB.

2" THREADED COUPLING SET FLUSH WITH FINISH GRADE 1/16"±

CONCRETE

CRIMP END

NOTE:
IF SIGN MUST BE PLACED IN EXISTING CONCRETE, CORE HOLE SHALL BE 8" DIAMETER.
SIGN:
6" X 24" SHEET ALUMINUM 0.080" THICK

BACKGROUND:
GREEN REFLECTIVE SHEETING, OR
BLUE FOR PRIVATE ROADS.
SHEETING SHALL MEET MUTCD
REQUIREMENTS FOR REFLECTIVITY.

LETTERS:
4" UC C SERIES, EXCEPT SUFFIXES
AND PREFIXES 2" UC C SERIES

STREET SIGN MOUNTING
HARDWARE:
ZUMAR STYLE 6060 F
OR EQUIVALENT

STOP SIGN MOUNTING
HARDWARE:
HAWKINS U-BRACKET M2G-C2B
OR EQUIVALENT

POST:
10' X 2" SCHEDULE 40
GALVANIZED STEEL PIPE

SIGN:
R1-1 30" X 30"
HIGH INTENSITY GRADE

NOTE:
IF SIGN MUST BE PLACED IN
EXISTING CONCRETE, CORE
HOLE SHALL BE 8" DIAMETER.

CITY OF KIRKLAND
PLAN NO. CK-R.44

CITY OF KIRKLAND
STREET NAME
SIGN STANDARD
NOTES:
1. PLACE MARKING IN CENTER OF TRAVELED WAY, EVERY 250'-350'.
2. SEE SECTION 9C.07, 2009 MUTCD FOR MORE GUIDANCE.
3. SHARED LANE MARKING MATERIAL SHALL BE 90 MILL, PREFORMED, SKID RESISTANT THERMOPLASTIC.
NOTES:

1. WHERE DEPTH OF NECK EXCEEDS 18 INCHES, ADJUST MANHOLE/CATCH BASIN TO GRADE BY INSERTING NEW BARREL SECTION BETWEEN THE CONE/SLAB AND EXISTING BARREL.

2. GRADE RINGS, RISERS, BRICK AND FRAME SHALL BE SET IN 3/4" NON-SHRINK GROUT, GROUT BETWEEN ALL JOINTS.
   ALL SURFACES MUST BE CLEAN OF DEBRIS AND DIRT, AND WETTED PRIOR TO GROUTING. GROUT SMOOTH INSIDE AND OUTSIDE SURFACES.

3. STEPS OR HAND HOLDS SHALL BE ADDED AS NEEDED.

4. PRECAST GRADE RINGS AND RISERS MUST BE CAST WITH GROOVE TO ALLOW FIELD INSTALLATION OF SAFETY STEP.

5. REPLACE EXISTING FRAME AND COVER/GRATE IF NON-STANDARD.

6. IF REQUIRED: LOCKING MH FRAMES SHALL BE POSITIONED WITH ONE LUG CENTERED OVER STEPS.

CITY OF KIRKLAND

PLAN NO. CK- S.26

MANHOLE FRAME AND GRATE ADJUSTMENT
NOTE:

1. USE – FOG TITE #2 OR EQUAL
24", 30", 36" VALVE BOX BASE
NOT TO SCALE

5-5/8" DIA
5-1/8" DIA
7-1/2" DIA
8" DIA
8-3/4" DIA

1-1/16" 3/8" R

7-1/2" DIA
8" DIA
9-1/4" DIA
6-5/8" DIA
7-3/16" DIA
6-1/8" DIA

18-1/8" 9-1/4" DIA
6-3/4" DIA
6-1/8" DIA
7-3/16" DIA

MATING SURFACES TO BE MACHINED

15/16" 7/16"

24" 30" 36" VALVE BOX TOP
NOT TO SCALE

8-1/8" DIA
6-7/8" DIA
1-1/4"

NOTES:
1. IF NEEDED, USE MULTIPLE BASE SECTIONS STARTING WITH 36" BASE.
2. "SOIL PIPE" WILL NOT BE ACCEPTED.
3. MATERIAL SHALL BE CAST IRON ASTM A48, CL30.
4. OLYMPIC FOUNDRY PRODUCT OR EQUIVALENT.
5. PAINT VALVE LID WITH KELLY MOORE 5880 DTM GLOSS ENAMEL-SAFETY BLUE OR EQUAL.
6. ALL VALVE CAN LIDS SHALL BE 940-B "LOCKING" STYLE.
NOTE

1. Four feet of the sidewalk width shall be the minimum pedestrian accessible route free of vertical and horizontal obstructions. Gratings, Access Covers, Junction Boxes, Cable Vaults, Pull Boxes and other appurtenances within the sidewalk must have slip resistant surfaces, be flush with surface, and match grade of the sidewalk.
**NOTES**

1. This plan is to be used where pedestrian crossing in one direction is not permitted.
2. At marked crosswalks, the connection between the Landing and the roadway must be contained within the width of the crosswalk markings.
3. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
4. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing or in the Depressed Curb and Gutter where the Landing connects to the roadway.
7. The Bid Item "Cement Concrete Curb Ramp Type..." does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
8. The Curb Ramp length is not required to exceed 15 feet (unless shown otherwise in the Contract Plans). When applying the 15-foot max. length (measured from back of sidewalk) the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet.
10. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will not be material to retain.
NOTES

1. The Detectable Warning Surface (DWS) shall extend the full width of the curb ramp, landing, or other roadway entrance as applicable. Exception: If the Manufacturer of the DWS requires a concrete border around the DWS, a variance of up to 2 inches on each side of the DWS is permitted.

2. The Detectable Warning Surface (DWS) shall be placed at the back of curb, with the two leading corners of the DWS panel placed adjacent to the back of the curb, and with no more than a 2 inch gap between the DWS and the back of the curb measured at the center of the DWS panel. Exception: If the Manufacturer of the selected DWS requires a concrete border around the DWS, a variance of up to 2 inches from the back of the curb is permitted (measured at the leading corners of the DWS panel).

3. The rows of truncated domes shall be aligned to be perpendicular to the grade break at the back of curb.

4. The rows of truncated domes shall be aligned parallel to the direction of travel.

5. If curb and gutter are not present, such as a shared-use path connection, the Detectable Warning Surface shall be placed at the pavement edge.


7. If a curb ramp is required, the location of the Detectable Warning Surface must be at the bottom of the ramp and within the required distance from the rail.

8. When the grade break between the curb ramp and the landing is less than or equal to 5 ft, from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp directly above the grade break.
NOTES

1. When the driveway width exceeds 15' (ft), construct a full depth expansion joint with 3/8" (in) joint filler along the driveway centerline. See Standard Plan F-30.10. Construct expansion joints parallel with the centerline as required at 15' (ft) max spacing when driveway widths exceed 30' (ft).


3. Curb and Gutter shown; see the Contract Plans for the curb design specified. See Standard Plan F-10.12 for Curb Details.

4. Avoid placing drainage structures, junction boxes or other obstructions in front of driveway entrances.

5. Where "GRADE BREAK" is called out, the entire length of the line between the two adjacent surface planes shall be flush.

6. The Pedestrian Ramp length is not to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length (measured from back of sidewalk) the running slope of the pedestrian ramp is allowed to exceed 6.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet.

7. Beyond limits shown. Pay item does not include driveway. See Contract Plans.

CEMENT CONCRETE DRIVEWAY ENTRANCE TYPES 1, 2, 3, & 4

STATE DESIGN ENGINEER
Washington State Department of Transportation

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER

SHEET 1 OF 2 SHEETS
CIRCULAR SAWCUT (TYP.)

EDGE OF SHOULDER

TYPE 3 STOP LINE LOOPS

TYPE 3 ADVANCE LOOPS

NOTES
1. For Installation Notes and Details see Standard Plan J-50.15.
3. All of the loop lead-in wires shall return to the Junction Box.
4. For Splice Detail, see Standard Plan J-50.05.
5. For Loop numbering Layout Details, see sheet 3.
6. For additional Induction Loop Details, see Standard Plan J-50.15.
TYPE 3 STOP LINE LOOP WIRING DIAGRAM
SERIES SPLICE SHOWN

TYPE 3 ADVANCE LOOP WIRING DIAGRAM

TYPE 3 SAMPLING LOOP WIRING DIAGRAM
SERIES SPLICE SHOWN

NOTES
Loop numbering layout will be similar to Loop Numbering Layout Detail, Sheet 3.

STATE DESIGN ENGINEER
Washington State Department of Transportation
CIRCULAR SAWCUT (TYP.)

2C(SH) CABLE

STOP LINE

EDGE OF LANE

CIRCULAR SAWCUT (TYP.)

PLAN

TYPE 3A STOP LINE LOOPS

SEE DETAIL "B", STANDARD PLAN J-50.15 SHEET 2

SEE ENTRANCE SAWCUT DETAIL SHEET 1 (TYP.)

JUNCTION BOX

CONDUIT

EDGE OF SHOULDER

LEAD-IN SAWCUTS (TYP.)

3'-0" (TYP.)

6'-0" Diam. (TYP.)

4'-0"

1'-0"

L L L

PHASE NUMBER

LOOP SERIES NUMBER MARKING DETAIL

L X X X

LOOP SERIES LETTER

(SERIES LOOPS ONLY)

LOOP NUMBER

LOOP SERIES MARKING SLEEVE (TYP.)

LOOP SERIES START OR FINISH MARKING SLEEVE (TYP.)

TYPE 3A STOP LINE LOOP WIRING DIAGRAM

SERIES SPLICE SHOWN

TRAFFIC FLOW

S = START

F = FINISH

SPLICE (TYP.)

OFFSET CRIMPS

 LOOP LABELING LAYOUT DETAIL

Approved for publication
Carpenter, Jeff
Jul 21 2017 8:14 AM

State Design Engineer

Washington State Department of Transportation

Bailey, Ted
Jul 18 2017 9:57 AM

Type 3 Induction Loop

Standard Plan J-50.12-01

Sheet 2 of 3 Sheets

Approved for publication
Carpenter, Jeff
Jul 21 2017 8:14 AM

State Design Engineer

Washington State Department of Transportation
INDUCTION LOOP DETAILS

STANDARD PLAN J-50.15-01

LOOP INSTALLATION NOTES

1. Install the Junction Box and the stub-out conduit with Sch. 80 PVC stub-out sleeve. Conduit for the loop stub-out shall be as required in the conduit size table shown on sheet 1 of this set.

2. Lay out loops and loop lead-ins to miss cracks/joints in road, when possible. Maintain 18" (in) minimum clearance from manholes and valve boxes.

3. The opening around the loop stub shall be patched with matching paving material if opened larger than PVC sleeve + 2" (in).

4. Sawcut the loop slots and the lead-in slots. Wash/dry cuts. File edges to remove burr of all sawcuts into stub out sleeve.

5. Lay out the loop wire starting at the Junction Box, allowing 5' (ft) minimum slack.

6. Install the wire in the loop slot as shown.

7. Finish laying out the wire at the Junction Box and identify the leads with the loop number, the "S" for start and the "F" for finish, the loop series number, and the loop lead-in conductor number.

8. Twist each pair of the lead-in wires a minimum of two times per foot each foot, from the loop to the Junction Box. Reverse the direction of the twist for each successive pair installed. Seal loops/sawcuts.

9. Construct a supplemental splice containing any series loop connections in the adjacent junction box as required in the plans. Supplemental splices are subject to the same requirements shown for the loop lead-in and the shielded cable splice.

10. Splice the loop lead-ins to the shielded cable as noted in the Contract. See Standard Plan J-50.05 for Loop Splice details.

11. All loop circuits shall be tested per Standard Specification Section 6-20.3(14)D once installation is complete.

12. Existing stub-out shall be upgraded as necessary to conform to the conduit size table shown on sheet 1.

13. All loop-in sawcuts parallel to lane edge shall be at least 12" (in) from edge of pavement and within six inches outside of lane or fog line when possible. Maintain 12" (in) separation between parallel cuts or joints.

14. The loop stub-out sleeve shall have an inside diameter 1" (in) larger than the outside diameter of the End Bell Bushing. Sleeve shall be notched 5/8" (in) to 3/4" (in) to accommodate loop wires. Plug conduit and fill sleeve with sand until loops are installed to keep out Hot Asphalt during paving operations.
INDUCTION LOOP DETAILS

STANDARD PLAN J-50.15-01

STUB-OUT DETAIL
WITH CEMENT CONCRETE CURB OR GUTTER

SIDEWALK
CEMENT CONCRETE CURB OR GUTTER
SEE STANDARD PLAN F-10.12

12" LOOP STUB-OUT SLEEVE (1/4" (IN) TO 1/2" (IN) BELOW TOP OF PAVEMENT)

LEAD-IN CONDUIT SHALL EXTEND A MINIMUM OF 3/4" (IN) INTO PAVEMENT (PAVEMENT DEPTH VARIES)
CONDUIT SECURED INTO ROAD SURFACE (TYP.)

TO JUNCTION BOX

CEMENT CONCRETE CURB OR GUTTER
SEE STANDARD PLAN F-10.12

12" LOOP STUB-OUT SLEEVE (1/4" (IN) TO 1/2" (IN) BELOW TOP OF PAVEMENT)

LEAD-IN CONDUIT SHALL EXTEND A MINIMUM OF 3/4" (IN) INTO PAVEMENT (PAVEMENT DEPTH VARIES)
CONDUIT SECURED INTO ROAD SURFACE (TYP.)

TO JUNCTION BOX

STUB-OUT DETAIL
WITH GUARDRAIL AND CURB

GUARDRAIL WITH POST AND BLOCK
CEMENT CONCRETE CURB OR GUTTER
SEE STANDARD PLAN F-10.12

12" LOOP STUB-OUT SLEEVE (1/4" (IN) TO 1/2" (IN) BELOW TOP OF PAVEMENT)

LEAD-IN CONDUIT SHALL EXTEND A MINIMUM OF 3/4" (IN) INTO PAVEMENT (PAVEMENT DEPTH VARIES)
CONDUIT SECURED INTO ROAD SURFACE (TYP.)

TO JUNCTION BOX

STUB-OUT DETAIL
WITH ROADWAY

EDGE OF PAVED SHOULDER

12" LOOP STUB-OUT SLEEVE (1/4" (IN) TO 1/2" (IN) BELOW TOP OF PAVEMENT)

LEAD-IN CONDUIT SHALL EXTEND A MINIMUM OF 3/4" (IN) INTO PAVEMENT (PAVEMENT DEPTH VARIES)
CONDUIT SECURED INTO ROAD SURFACE (TYP.)

TO JUNCTION BOX

STUB-OUT DETAIL
WITH CEMENT CONCRETE BARRIER

CEMENT CONCRETE BARRIER = SINGLE SLOPE BARRIER SHOWN SEE CONTRACT PLANS FOR SIZE AND TYPE

LOOP STUB-OUT SLEEVE 1/4" (IN) TO 1/2" (IN) BELOW TOP OF PAVEMENT

LEAD-IN CONDUIT SHALL EXTEND A MINIMUM OF 3/4" (IN) INTO PAVEMENT (PAVEMENT DEPTH VARIES)
CONDUIT SECURED INTO ROAD SURFACE (TYP.)

TO JUNCTION BOX